

German Science Fiction in the Science-Fiction Magazines of
Hugo Gernsback (1926-1935)

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A Thesis submitted to the
Faculty of Graduate Studies and Research
in partial fulfillment of the requirements
for the degree of Master of Arts

Comparative Literature Program
McGill University
Montreal

© March 1986

Abstract

This thesis examines all fictional narratives originally written in German which were published in Hugo Gernsback's S-F magazines in the USA between 1926 and 1935.

The 16 narratives are analyzed textually, ideologically, and sociologically, and then confronted to the non-fictional discourse of the magazines (Gernsback's editorials, advertisements, and readers' letters together with editorial responses). The approaches used are principally various theories of agential analysis, spatial analysis, and presupposition as developed by Bakhtin, Suvin, and Angenot.

The aim of the thesis is to suggest why these German narratives were acceptable to a US readership by examining the function of science and technology for the German authors on one hand and Gernsback and his dominant readership on the other.

Résumé

Ce mémoire étudie toutes les textes narratifs allemands qui ont été publiés aux Etats-Unis dans les revues d'anticipation de Hugo Gernsback entre 1926 et 1935.

Les 16 textes narratifs sont analysés aux niveaux textuels, idéologiques, et sociologiques, et puis confrontés aux discours non-fictionnels des revues (les éditoriaux de Gernsback, les publicités, et les lettres des lecteurs avec les réponses de l'éditeur). Les approches employées sont essentiellement des théories de l'analyse agentielle, de l'analyse spatiale, et du présupposé, développés par Bakhtin, Suvin, et Angenot.

Le but du mémoire est de suggérer pourquoi ces textes allemands ont été acceptables à un public américain en étudiant d'un part la fonction de la science et de la technologie pour les auteurs allemands, et d'autre part Gernsback et la classe dominante de ses lecteurs.

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Acknowledgements

I would like to thank my advisor, Prof. Darko Suvin, for his guidance and invaluable suggestions throughout this work, and Prof. Marc Angenot for discussing aspects of social discourse, thus helping me to develop Chapter 5 of this thesis. I am indebted to William B. Fischer at Portland State University, Franz Rottensteiner in Vienna, Curt Siodmak in California, and Jörg Weigand in the Federal Republic of Germany for taking the time to reply to my letters and providing information where possible. My thanks also go to the Interlibrary Loan staff of McGill University for their unfailing assistance; to the Reference staff of McLennan Library at McGill, particularly Kendall Wallis, for always pointing me in the right direction; to Lucie Bernier; and to Andy for his support.

CHAPTER ONE

SCOPE, PLAN, AND METHODOLOGY

1.0. This thesis examines the most significant aspects of German science fiction (further abbreviated as SF) translated in the eight US magazines owned by the first editor of specialized S-F periodicals, Hugo Gernsback. That corpus of stories, which were supposedly translated from German, consists of 16 narratives--four short stories and 12 novels--published in English between 1926 and 1935.¹ My discussion will be confined primarily to the novel-length works, which feature more developed agents and situations. I shall refer to the short stories only to supplement arguments arising from the longer texts.

I shall first proceed to a textual analysis of this corpus of German narratives in order to suggest what purpose and meaning the stories held for a German readership of the 1920s and early 1930s. Taking as an axiom that authors do not create in a vacuum but are stimulated and limited by their empirical and ideological environment, so that they incorporate, either consciously or subconsciously, some ideology of their times, I will compare the findings of the textual analysis to the socio-historical context in an attempt to account for the spatial composition, views expressed through and by the narrative agents, and the overall profile of these narratives. Second, I shall confront the texts to the non-fictional discourse of Gernsback's SF magazines in order to examine what purpose the translated texts had for Hugo Gernsback, who published them in his S-F magazines, and how these German narratives, extracted from their original context, were perceived by a US readership. Answers to these questions should be provided by interaction with an analysis of the non-fictional discourse

(advertisements, letters, and Gernsback's editorials). From the non-fictional discourse I shall establish the social addressee or ideal reader² of these magazines, as well as his and Gernsback's view of "science." It is to be assumed that Gernsback's view should closely parallel that of his readers. Comparisons can then be made and conclusions offered for the reasons of inclusion and function of the German narratives in Gernsback's US S-F magazines.

The object of this thesis, therefore, is to fill a gap in existing research by examining what is most probably a major part of German SF published in the USA before 1945, as well as by opening up Gernsback's S-F magazines by means of a relatively unexplored approach. Furthermore, it is hoped that some methodological problems of narrative analysis in SF can also be tackled.

1.1. German SF has long been in a state of relative neglect. Considering the attention accorded to SF as a genre in recent years, it is surprising that more studies have not been made in German SF. Studies of German SF are rare in the English language, but they are by no means plentiful in German. German critics have tended to survey more readily accessible Anglo-American SF instead of their own.

The study of earlier German SF is not an easy one. Prior to the 1950s, German SF was a poorly defined type of fiction. As William B. Fischer notes in his introduction to The Empire Strikes Out, reliable bibliographical information is scarce and many texts are virtually inaccessible or, quite possibly, no longer exist. Fischer further suggests that some books have not yet been identified as SF, and much material remains to be organized in a way that critics can make use of.

There are several reasons for this state of affairs. The first, as suggested above, is a relative neglect of German SF both in Germany and elsewhere. Prior to Hitler's rise to power, German SF was overlooked by literary historians and most critics. Once in power, the fascist government suppressed and classified information concerning research in science and technology, thus denying S-F writers one basic "raw material" for their stories. A number of crackpot "disciplines" became official or quasi-official, and--paradoxically--also difficult to treat in a playful way. National Socialist Literaturpolitik, although relatively short-lived, also had a detrimental effect on the development of German SF and its criticism. Many titles, such as the acknowledged 19th-century classic Auf zwei Planeten by Kurd Lasswitz, were suppressed during this period. Exceptionally, SF which promoted elements of Nazi ideology, such as the novels of Hans Dominik, continued to be published. The result was that German SF virtually had to start anew after 1945. Fischer suggests that Lasswitz would have been the logical choice for writers to follow after 1945, but his works were forgotten and remained for a long while practically unknown. From 1945 until well into the 1970s, the dominant tendency in Germany has been to translate Anglo-American SF rather than continuing what had been, up to the mid-1930s, quite a diversified genre in its treatment of various themes. Consequently, German SF really only established itself again in the sixties and early seventies with authors like Herbert W. Franke (Das Gedankennetz, 1961; trans. The Thought Net, 1974) and more recently with authors such as Wolfgang Jeschke and Gerd Maximovic. A further obstacle to the spread of German SF is the language: obviously, there are fewer readers and critics of German as compared to English.

The treatment of SF as a subculture or a branch of culture is as

true in much German SF criticism as in other national criticisms of SF. The approach to SF as a literary genre, not isolated from sociological and ideological aspects but with a certain aesthetic autonomy, has often been neglected, perhaps because SF is still stigmatized by its lowbrow connotation. However, there have been some important contributions to the field of German S-F criticism both inside and outside Germany.

In German, early works include Martin Schwonke's Vom Staatsroman zur Science Fiction (1957) and Hans-Jürgen Krysmanski's Die utopische Methode (1963). Though they remain important precursors, neither work is by any means a survey of German SF. Schwonke's work deals with SF as the successor to the Staatsromane (17th and 18th century "state novels") as well as to the utopian novel, and he makes use of many US examples to illustrate his hypotheses. He briefly refers to Lasswitz's work. Krysmanski's sociological book deals with the "utopian method" ("utopische Methode"), and uses, besides US SF, some German "utopian" (in part also SF) works of the 20th century--by Döblin, Hauptmann, Hesse, Jünger, Kellermann, and Werfel--as illustration for his thesis. The most notable and most useful contribution is Manfred Nagl's Science Fiction in Deutschland (1972). His is the only attempt at an in-depth survey of SF in Germany (though of SF translated into as well as written in German) from a sociological, ideological, and, sometimes, aesthetic viewpoint. Further, he uncovers some forgotten German S-F narratives. In his chapter covering the between-wars period, Nagl details how many of the pseudo-scientific principles, crackpot theories of science, "pamphlet ideology," as well as popular superstition came to be incorporated into German SF. Nagl's later work Science Fiction: Ein Segment populärer Kultur im Medien- und Produktverbund (1981) covers SF

both in literature and in various media (film, radio, comic books, music, and art) and uses examples principally from German, US, and French sources. This work briefly discusses Gernsback's magazines and their German contributors (as well US contributions to German SF magazines of the same period). One should also mention Jörg Hienger's meritorious Literarische Zukunftsphantastik (1972), which offers more detailed studies of individual narratives than Schwonke's or Krysmanski's works, but again the emphasis is upon US examples illustrating his thesis that change is central to the S-F genre.

Any systematic critical appreciation of the authors of my chosen corpus appears non-existent. Most of them are virtually forgotten, as evidenced by the paucity of biobibliographical information. German-language S-F encyclopaedias or lexicons have entries for the more prolific or popular writers (e.g., von Hanstein, Siodmak), and together with other standard German language biographies provided the starting point for this research. Some authors (Spohr, Golub, am Bruhl, "Anthos") are completely absent from the reference works I know of, and such gaps are indicative of the work still to be done in the area of German SF. For others entries are, at best, sketchy--the 35-word entry for Anton in Reclams SF Führer, for instance.

There is relatively little English criticism of German SF. William B. Fischer's The Empire Strikes Out (1984) is an exemplary exception, though Fischer confines himself to Kurd Lasswitz's and Hans Dominik's oeuvre as representatives of the diversity of early German SF. He does however make some enlightening remarks on the sociological context in which these works were written. Other texts in English on German SF are mainly articles in journals such as Science-Fiction Studies (see Fischer, "German Theories"; Nagl, "SF, Occult Science...", and "National

Peculiarities..."; Hasselblatt), Foundation (see Lundwall "Adventures"; Lowndes) and Extrapolation (see Tucker). English-language S-F encyclopaedias list only writers whose books were published in or those who emigrated to the US--i.e., Gail and Siodmak--and that usually at second hand. Because it exists at all, the minimal entry for Freksa in the Encyclopaedia of Science Fiction and Fantasy is an exception for an English-language reference work.

In comparison to the material available on German SF, the amount of information about Gernsback and his S-F magazines is quite staggering. Without exception, every historical account of the US S-F magazine market that I consulted begins with Amazing Stories and usually goes on to discuss Gernsback's other S-F magazines. The works by Ashley, Rottensteiner (The Science Fiction Book), Moskowitz, and Del Rey listed in the Bibliography all cover this aspect from different viewpoints, and there are many more works available on this subject. However, few among all of them discuss any SF other than US contributions, although Gernsback printed several stories of French origin and at least one Russian and one Norwegian story--besides the corpus of German narratives under consideration here. Even one German-language source I consulted (Lexikon der Science Fiction Literatur 38-39) discusses the early US S-F magazines, including Gernsback's, only in regard to their US contributors.

One exception, and one of the best works about magazine SF, is Paul A. Carter's The Creation of Tomorrow (1977). Carter covers the history of magazine SF, and his first chapter deals with Gernsback's S-F magazines, though again mainly for the US contributions. However,

chapter two of this book does discuss the interrelationship between the work of German and US rocket experimenters of the day and the newly-founded S-F magazines, as well as the overlap of the factual and the fanciful. The chapter entitled "Science Fiction Discovers Hitler" is the only instance where any of these German S-F authors are discussed, though summarily, in relation to the US S-F magazine scene. Again, this chapter deals primarily with criticism of Hitler's Germany and fascism through the US contributions. The only other article worthy of note is Nagl's "National Peculiarities..." which briefly compares German and US SF between the wars. However, its comments are confined mainly to the general sociological conditions prevalent in the US and Germany, which made for distinct peculiarities in German as opposed to US SF.

I should point out that there is no study at all devoted to any aspect of German SF in translation, English or otherwise. This thesis was therefore obliged to start almost from zero and to yoke together approaches to several distinct but significant aspects of my corpus.

As Fischer states, research in German SF is still in its beginnings and I experienced difficulties in trying to locate the original German texts for some of the stories. I was unable to trace the German titles of The Final War, Utopia Island, In the Year 8000, "The Malignant Flower," "Garfield's Invention," and "The Secret of the Microcosm." It is questionable whether Utopia Island and In the Year 8000 were ever published in Germany. As for the short stories, I presume that they were originally published either in anthologies or, more probably, in magazines, such as Bibliothek der Unterhaltung und des Wissens or Das neue Universum, both of which published SF (including US SF in German translation).

Early German S-F novels are not readily available in North America. Initially, my research was to be based on a stay in the Federal Republic of Germany. As a result of financial and time limitations this turned out not to be possible, so that I was compelled to rely upon help from specialists in German SF. To locate some of the more obscure authors and original titles, I wrote to Dr. Franz Rottensteiner in Vienna and Dr. William B. Fischer in Portland, Oregon. Both are leading figures in the field of German SF criticism.

Dr. Rottensteiner was unable to provide any information about Carl W. Spohr, Leo am Bruhl, and "Anthos," who were unknown to him. Apparently they have not published any books in German, according to Dr. Rottensteiner. This fact is interesting with regard to Spohr: The Final War is a book-length story but may, of course, have been serialized in a magazine and never subsequently published as a novel. The National Union Catalog does list Der fromme Landknecht by a Carl Spohr (Leipzig: Koehler and Amelung, 1929), but lacking further biographical information, it can only be surmised that this may be the same author. Dr. Rottensteiner suggested several other possibilities for the German titles which I was then able to follow up through Dr. Jörg Weigand (for the von Hanstein narratives) and the interlibrary loan service of McGill University.

Dr. Weigand is presently collecting material on Otfrid von Hanstein. This task, he wrote me, is made difficult by the fact that many books were destroyed during the Second World War. In addition, direct descendants of von Hanstein live in the German Democratic Republic and it is all but impossible to acquire material from them. Dr. Weigand is therefore depending upon the help of von Hanstein's more

distant relatives in the Federal Republic.

Dr. Weigand confirmed the translation of Mond-Rak 1 as Between Earth and Moon and, from a description he provided from a publisher's handbook, I was able to identify The Hidden Colony as Die Farm des Verschollenen. As for Utopia Island, he suggested Ein Flug um die Welt und die Insel der seltsamen Dinge; I obtained this novel, but it was a different narrative. What appears to be a complete listing of von Hanstein's oeuvre in Deutsches Literatur-Lexikon offers no other title which immediately suggests Utopia Island as its translation. Dr. Weigand thought it likely that In the Year 8000 only appeared in the USA and was not published at all in Germany. Gernsback's introduction to the narrative does state "The present story was written exclusively for WONDER STORIES." Perhaps this is also true for Utopia Island which appeared in Wonder Stories a year earlier.

Dr. Fischer also replied to my letter but was unable to provide any supplementary information since the authors of my corpus were outside his area of research.

I was also able to trace the address of Curt Siodmak and wrote to him about his short story "The Eggs from Lake Tanganyika." Mr. Siodmak replied that he wrote "Die Eier von Tanganyika See" for Scherl Magazin in 1926. Gernsback bought the American reprinting rights for \$25.

Since the original works were so difficult to obtain (only four were available through interlibrary loan before this thesis had to be submitted), I have, for consistency sake, worked mainly from the translations in Gernsback's magazines, pointing out relevant discrepancies or omissions where translations could be compared to the originals.

As to the reasons for Gernsback's selection, one could simply say that Gernsback himself--a native Luxemburger whose mother language was German--may have been familiar with some of the stories and may have wanted to introduce some of his favourite stories to US readers. In addition, Gernsback's literary editor, C. A. Brandt, who was German by birth, may have selected the stories because the magazines needed "fillers" and the texts happened to be known to him. We have no evidence whether any of the stories were Gernsback's or Brandt's personal favourites. However, it does not take long to realize that few of the translated narratives are worthy of the tag "classic": there are none of the acknowledged masters--no Lasswitz, no Kellermann, no Döblin, not even any fictional contributions by Hans Dominik, a bestselling author in Germany at the time (see Richards). These stories must, therefore, have been selected with other criteria in mind:

The editorial comments introducing the stories inside the magazine call these narratives "of superior merit," "masterpieces," "remarkable," and so forth. Such "hype" descriptions--which Carter feels were very likely by Gernsback himself (Creation 7)--might have been written in order to influence a browser to buy and a reader to approve the magazine, but it is also possible that Gernsback and his editorial staff had sincere ideological reasons for attributing these qualities to the stories. I shall attempt to find those reasons by reviewing some of the editorials written by Gernsback.

As concerns the overall type and quality of narratives involved, 14 of the 16 German stories centre around wondrous inventions or labour-saving devices and usually present a pleasant future lifestyle for the

protagonist(s). Much is made of electrically powered devices--so much so that an ideal future city seems to be one that functions automatically using electricity as its power source (von Hanstein's Electropolis, for example). In this sense, these stories are poor representatives of the S-F genre: the "novum" in them is usually a marvellous device, a new invention which is never fully integrated into the narrative, so that we do not see a possible alternative society depicting other human relationships (cf. Suvin, Metamorphoses chap. 4 and Victorian Science Fiction passim, in particular 4 and 86). In the majority of this corpus, if these non-integrated "marvellous inventions" were disregarded, the narratives would be revealed to be other literary forms (such as the Western, detective story or spy story) masquerading as SF. This majority thus fits the description of what Suvin calls "pessimum" SF (Victorian Science Fiction 304 ff.). For example, Druso is basically action-adventure; The Final War, a war story. Interplanetary Bridges is geneologically so disparate that it employs the spy story and action-adventure structures with traces of the Western and fairy tale. With varying degrees of success, the authors overlay this basic structure with a scientific or pseudo-scientific element; for good measure, some mix in mythological components, current popularized philosophies, as well as high-lit borrowings, which results in a narratological jumble. Suvin (in Victorian Science Fiction) calls such examples incoherent pessimums. It is not surprising therefore that the "novum" of many of these narratives is strictly confined to a superficial "novelty." This is one of the ways in which Gernsback viewed science (see the discussion in Chapter 5). In these narratives, the science component is usually, though not always, represented in an impoverished way, by a mechanical device or a new invention of some

sort--be it a spacecraft capable of interplanetary travel, a superweapon, or a gadget to lessen human toil. "Science" is not taken by Gernsback in the European sense--German Wissenschaft or French science--which include the cultural sciences and knowledge as well as the natural sciences. In the narratives studied here, science is understood only as natural science and usually in the applied sense of technology. Webster's New Collegiate Dictionary defines technology as "the totality of the means employed to provide objects necessary for human sustenance and comfort"; the Encyclopaedia Britannica (18:21) defines it as "the means or activity by which man seeks to change or manipulate his environment." Both would concur quite accurately with what Gernsback terms "science," though he also uses "science" to refer to theoretical knowledge of a natural science. Thus, not only does he relegate science (technology) to gadgetry whose value is its "gosh-wow" effect, he also views it as the ultimate solution to human problems. 14 of the 16 German narratives coincide with Gernsback's view of science, presenting an optimistic view of machines in the service of man. Therefore, I shall among other things analyze the corpus to establish how science is viewed and what role it is perceived to fulfill by the German authors in the context of their ideological environment; and by Gernsback and his readership. Since Gernsback uses "science" as an umbrella term, I shall use more specific terms: "science" to describe a theoretical area of knowledge and "technology" in the applied sense. Hence, "scientist" will refer to a theoretician and "engineer" to the person who puts ideas into practice.

In coining "scientifiction" and later "science fiction" to describe this genre of narrative, Gernsback seemed to interpret the term very

literally as fiction with an admixture of science--in fact, he defines a good SF story in one of his editorials as consisting of 25% science and 75% fiction (Amazing Stories, July 1926: 291).

1.2. To examine the texts, I shall use Darko Suvin's hypotheses of agential and spatio-temporal analysis which provide a first, non-impressionistic approach to text analysis. Suvin views narrative agents as "all nouns or nominal syntagms that can be imagined as separate animate entities, and thus (in contrast to the inanimate objects) as able to undertake an action in a given textual universe." His theory of agential analysis is built upon historical fundamentals in Aristotle and Propp. According to Suvin, these two critics have proceeded "by means of socio-historical induction from precise cultural processes such as genres and discursive traditions" ("On Dramaturgic Agents" 80) rather than proceeding deductively and thus basing themselves on dubious universal laws or the ubiquitous "eternal truths" of literary analysis.

Early in the twentieth century, Lukács opened up new perspectives on literary agents with notions eventually culminating in that of a "typical character." From the 1920s other groundbreaking work was done by E. M. Forster in his concept of "round" and "flat" characters, which correspond to what Suvin terms "characters" and "types." Another possible contribution to this field of inquiry, acknowledged by Suvin, is that made by the French semioticians with their theory of actants, which first appeared in 1966 with a special issue of Communications and Greimas' first book, Sémantique structurale. However, Suvin proposes to incorporate all such contributions critically into a socio-historical theory of agential analysis. In his hypothesis agents are cumulatively analyzable as a superposition of actants, types, and characters (see

Table 1, 15). Types and actants are, according to him, found in all narrative texts, whereas characters are only found in some narratives, depending upon genre and historical epoch of writing. Types are distinguished from characters in that types are determined by no more than six compatible (culturally congruent) traits. The compatibility of the traits is the result of interaction between the dominant categories in the author's empirical environment, from which the traits are drawn, and the notion of verisimilitude of the social addressee(s) whom the author is addressing. A character, on the other hand, will exhibit conflicting (culturally incongruous) traits and is usually defined by a greater number of traits.

The spatio-temporal or chronotopic aspect of the narratives will also be considered. A basic premise to the textual interpretation of qualitative space is that it is delimited as well as subdivided into heterogeneous and contradictory spaces.³ According to Suvin, a space can never stand in isolation and can never be thought of as neutral space: space is coloured in different ways. This may depend upon whether the space is viewed monophonically or polyphonically, i.e. whether it is presented to the reader from one point of view or from the point of view of many agents and, if polyphonically, whether the agents agree or disagree upon how they view a particular space. The degree of heterogeneity of the spatial limits is also important: the physical location of the spaces in relation to one another and whether a given space borders on one or more other spaces also have to be taken into account. As a qualitative ensemble, the attributes of a space will signify different ideological ways of envisaging conceivable societal relations.

TABLE 1. Levels of Narrative Agent

Agential level	Predicative articulation	Narratological locus	Verbal status and deep structure	Visualizing status	Definition	Historical duration
3 CHARACTER <u>personnage</u> or <u>personnage-personne</u> ; "round"). -Not obligatory.	A great though theoretically not unlimited number of possibly conflicting predicates/traits.	Always textual and a <u>dramatis persona</u> (when it exists).	Proper name; d.s. = illusion of large number of not fully fixed attributes, only imperfectly to be reconstituted from text + all the contexts.	Necessarily figurative (depictable), necessarily individual.	Individuality as presupposed by bourgeois practice (e.g., economics) and ideology (e.g., psychology).	Almost point-like - changeable for each different ensemble of spectators.
2 TYPE (<u>type</u> or <u>personnage-type</u> ; "flat"), e.g., Vice, Miser, Pantalone, Father, Soubrette. - Obligatory.	A small number - usually 2-6 - of compatible predicates/traits.	Metatextual or textual - according to whether level 3) exists or not.	Common or generic noun, can be proper name raised to that status; d.s. = noun + one or a few attributes, or nominal syntagm.	Necessarily figurative not necessarily individual.	Societal type (by age + sex + profession, &/or social group, &/or temperament, etc.).	"Courte durée"-generations or centuries.
1 ACTANT (substitute for Greimas's syntactic terms those of Value, Protagonist, Mandator, Beneficiary, and Satellite). - Obligatory.	One predicate as common denominator of a bundle of semic predicates.	Always metatextual, no discrete appearance as <u>dramatis persona</u> .	Common noun; d.s. = surface (= "force which does what is indicated by the noun").	Not necessarily figurative, necessarily not individual.	Function in dramaturgic action.	"Longue durée"-epochs or millennia.

Both Bakhtin and Suvin see space as being determined by what constitutes it, notably agents but also objects and the relationships established within that space. However, Suvin recognizes three levels for the topoanalysis of space: the first is the level of logico-semantic space, the basic cultural invariants of a given society for envisaging spacetime; the second level he terms imaginary space and is crucial for ~~all~~ cultural practice. This second level mediates between the first level and the third "common sense" level of sensually perceived (but also socialized) empirical space. For an analysis of space in a literary text, the interaction of imaginary space and empirical space are the most important levels for consideration. The system of imaginary spaces, though it is often not recognized as "variant possibilities of people's relations to each other and the universe" ("Approach"), is as important as that of agents to the analysis of a literary text.

So as to be able to study 16 German narratives, I have limited the agential and spatio-temporal part of the analysis by confining my discussion to several categories or domains. These categories are, for agential analysis:

- 1) the scientists or engineers;
- 2) their attitude to some other, as a rule secondary and marginalized, agential groups (women, workers, non-Germans, and non-Whites);
- 3) their attitude to science and technology: how they envision changing their environment, why, and for whom;
- 4) their "inventions" and the purpose of their inventions.

Since an examination of the qualitative nature of space consists of the relationship between one space and another space, a space and the agents in it, and the space and the objects in it, I will in

topoanalysis concentrate upon:

- 1) the significance of geographical locations mentioned, fictional vs non-fictional spaces;
- 2) open vs closed spaces, technological vs natural spaces;
- 3) the relationship between a space and its agents;
- 4) the relationship between a space and its objects.

The narratives will be examined chronologically, by German publication date where possible.

Since the works span quite a broad ideological range, I will use Frank Cioffi's division of S-F narratives according to narrative "formula" to draw parallels between the type of SF narrative and its ideological affiliation. In his book Formula Fiction? Cioffi identifies three principal formulas used in US SF of the 1930s. The status quo story opens with a conventional picture of social reality, which is disrupted by an anomaly (invasion, invention). Most of the status quo story involves combatting this disruption so that the initial reality is reasserted by the narrative's end. The second formula is the subversive in which the anomaly is not expelled but is incorporated into the society which is subverted by it. The last formula, the other world type, does not explicitly display empirical human reality, which is seemingly bypassed altogether (but is in fact, I would add, parabolically represented by the other world).

These divisions will prove useful for discerning the "ideological" spaces of the corpus and the ideological range represented by it. The status quo formula implies a conservative view of society on the part of the author. Writers whose works fall into the subversive mode challenge existing societal relations; Cioffi's "subversive" is too strong an

adjective: such S-F authors both in his and in my corpus are by no means revolutionary or anarchical in intent--they are merely liberal in their thinking compared to the status quo writers.

Although Cioffi's system is a useful starting point for discussion, it has some shortcomings. His methodology proves to be oversimplified and inconsistencies arise when tested against a wider range of SF than dealt with in his work. The "formula" theory takes only the main themes and surface realia of S-F narratives into account, not the various possible power relationships and the manner in which they are depicted (as analogous or obverse to the author's empirical environment). A much more complex system of "formulas" would therefore be needed to accommodate all permutations.

An analysis using all of these approaches should permit certain presuppositions to be elucidated about the corpus of German narratives. The hypothesis can be further set up that the agents and chronotopes represent--possibly in very specific and autonomous ways, by displacement and condensation (Freud)--ideologemes or constructs present in the author's empirical environment, and thus open up the texts onto their hors-texte or extratextual relationships. If certain recurring attitudes appear in a corpus which consists of 11 different authors, then the presupposition is that this attitude is shared by and "true" for a whole social group, in this case for their readership (social addressees). To check the results of the textual analysis against the socio-historical context, I propose to complete my methodology with some of the concepts developed by Marc Angenot's research into social discourse. For the notion of presupposition, topos, and ideologue, I am basing myself upon Angenot's paper "Présumé, topos, ideologue"

and chapter V.2 of his book La parole pamphlétaire. Further discussion and application of these concepts to SF may be found in Angenot's and Suvin's joint paper "Not Only but Also."

Angenot maintains that the notion of presupposition is inherent to all utterances and propositions. A simple statement, such as "The king of France is bald," is acceptable only if the addressee knows what is referred to by "France," "king," and "baldness." Presupposition, therefore, is not only inside such utterances, it is also outside the utterances of a text in what is implied. The text's author and the addressee share a knowledge of what constitutes the "implied." As a sum of such implications, presuppositions become ideological maxims--that is, the ideological commonplaces of the author's and his audience's socio-historical context. The intelligibility of a text is the result of an act of ideological intercomprehension between author and audience.

The presuppositions are thus stated implicitly in the qualities given to the spaces of a text, and especially by those given to the agents, both in the agential traits and their compatibility as well as in their development between the beginning and the end of a narrative text. In this manner, a text's ideology is revealed by supplementing the explicit with the undeniable implicit. Using this concept of presupposition, I wish to argue about the manner in which SF is being used by the German authors, whose socio-historical context was different from that of the USA in the 1920s and early 1930s. I take as a hypothesis that SF would be used differently and fulfill different roles for the German authors.

I shall further use the notion of the implied, presupposition, ideologeme, and ideological maxim in analysing the non-fictional

discourse in Gernsback's S-F magazines. This discourse consists of two components. The first is Gernsback's editorials from which his view of science can be culled: here I have looked for a consistency of outlook and have noted contradictions (if any). The second is the readers' letters (with editorial replies) and advertisements. To understand what type of reader these stories were aimed at, I have examined the advertisements by breaking them down into categories which account for their major part. The letter columns provide an indication as to how and for what purposes the readers read the magazines, and the opinions expressed in the letters will be compared to Gernsback's view. The letters, in some cases, also give an indication of the age, sex, occupation, education, and social stratum to which a reader belongs.

The non-fictional discourses grow out of special interests presupposed equally by Gernsback, his advertisers, and readers; however certain presuppositions specific to the nature of advertising and letter selection have also to be considered. Taking these factors into account, I shall establish a profile of Gernsback's ideal reader and compare this to a profile of an "actual" reader suggested by the advertisements and letters. The degree of convergence or divergence between the ideal and empirical reader and Gernsback's own view regarding the role of SF, science, progress and society should allow conclusions to be drawn why these German narratives would have been selected by Gernsback and would have appealed to a US readership.

NOTES

¹ Both Amazing Stories and Wonder Stories continued to be published after 1936, but they were no longer owned by Gernsback. The expression "supposedly translated from" refers to the fact, discussed later, that some of these narratives cannot be traced back to German originals and that in at least one case--the "Anthos" short story--that original may never have existed.

² The social addressee or the text's postulated ideal reader is inferred "from the texts themselves, when these are placed in the proper context of sociohistorical semantics and value-systems" (Suvin, Victorian Science Fiction 259).

³ To analyze the spacetime relationships, I have made use of several works, notably Mikhail Bakhtin's concept of chronotope from The Dialogic Imagination where he states:

In the literary artistic chronotope, spatial and temporal indicators are fused into one carefully thought out, concrete whole. Time, as it were, thickens; takes on flesh, becomes artistically visible; likewise space becomes charged and responsible to the movements of time, plot and history. This intersection of axes and fusion of indicators characterizes the artistic chronotope. (84)

as well as Darko Suvin's "Approach to Topoanalysis and to the Paradigmatics of Dramaturgic Space" (Poetics Today, forthcoming).

In addition, I have referred to Juri Lotman's Structure of the Artistic Text and Gaston Bachelard's Poetics of Space for the delimitation of space.

CHAPTER TWO

THE GERMAN NARRATIVES AND THEIR AUTHORS: THEMATIC AND IDEOLOGICAL RANGE

2.0. I shall here look at the German SF which was published in the US periodicals Amazing Stories, Science Wonder Stories, Air Wonder Stories, and Wonder Stories, - together with their corresponding quarterly and annual magazines, while the magazines were under Gernsback's control.¹ The magazine issues I shall be concerned with are Amazing Stories from its first issue in April 1926² to April 1929 (when Gernsback sold the magazine); all issues of Science Wonder Stories and Air Wonder Stories from their respective debuts in June and July 1929 until they merged as one magazine, Wonder Stories, in June 1930; and Wonder Stories from June 1930 until Gernsback sold this magazine in 1936 to Standard Publishing.

My search revealed two German S-F narratives in Amazing Stories (July 1926, September 1927); none in Amazing Stories Annual, Amazing Stories Quarterly, Air Wonder Stories or Science Wonder Stories; two in Science Wonder Quarterly; four in Wonder Stories Quarterly, and eight in Wonder Stories (a chronological list by magazine is given as Appendix A).

Since the titles with which I am dealing are very little known and "action" (syntagmatic events) is central to S-F texts, it becomes imperative to introduce their meaningful discussion by focussing on some central features of their thematics--the surface agential constellations and plot. In addition, general observations pertaining to the narratives, their ideology, and to their authors are also given here.

2.1. The German narratives, published in Gernsback's magazines between

1926 and 1935, were originally written, as far as can be determined, between 1920 and 1931. A chronological listing of their original German and the US publication dates and titles follows; authors are given in brackets:

1920	<u>Der Stern von Afrika</u>	<u>The Cosmic Cloud</u> (Bruno H. Bürgel)	1931
1922	<u>Brücke über den Weltraum</u>	<u>Interplanetary Bridges</u> (Ludwig Anton)	1933
1924	<u>Die Farm der Verschollenen</u>	<u>The Hidden Colony</u> (Otfrid von Hanstein)	1935
1925	<u>Der Schuss ins All</u>	<u>The Shot Into Infinity</u> (Otto Willi Gail)	1929
1926	<u>Der Stein vom Mond</u>	<u>The Stone from the Moon</u> (Otto Willi Gail)	1930
1926	"Die Eier von Tanganyika See"	"The Eggs from Lake Tanganyika" (Curt Siodmak)	1926
		"The Malignant Flower" (Anthos)	1927
1927	<u>Auf kühner Fahrt zum Mars</u>	<u>A Daring Trip to Mars</u> (Max Valier)	1931
1927	<u>Elektropolis</u>	<u>Electropolis</u> (Otfrid von Hanstein)	1930
1929	<u>Mond-Rak 1: Eine Fahrt ins Weltall</u>	<u>Between Earth and Moon</u> (Otfrid von Hanstein)	1930
1931	<u>Druso Oder: Die gestohlene Menschenheit</u>	<u>Druso</u> (Friedrich Freksa)	1934
		<u>Utopia Island</u> (Otfrid von Hanstein)	1931
		<u>In the Year 8000</u> (Otfrid von Hanstein)	1932
		<u>The Final War</u> (Carl W. Spohr)	1932
		"Garfield's Invention" (Leo am Bruhl)	1934

"The Secret of the Microcosm" 1934
(F. Golub)

As can be seen, the earliest narrative was published in German in 1920 and, of the narratives which could be traced, 1931 is the latest date.

— The Final War, obviously based on the author's World War I experiences, would probably have appeared in German at a rather earlier date than it appeared in English (1932); I would suggest a date between 1920 and 1925. Where a German publication could not be traced, the US magazine publication date has been indicated. Except for the two early stories and last two stories, all of minor significance, the novel-length works were published in the USA between 1929 and 1932. The average translation lag of the nine novels for which it can be calculated was 5.3 years.

The Cosmic Cloud by Bruno H. Bärqel

Most of the Earth has become uninhabitable because a cloud of cosmic dust is blocking sunlight. Only the Mediterranean and equatorial zones are capable of sustaining life. The greater part of this narrative is therefore set in Africa with glimpses of the frozen barren wastes of northern Europe. The action takes place between Cape Town, where Edward Hawthorn has his Usambarite Works which manufactures rockets, and Zanzibar, where the African Senate convenes.

One of the story's protagonists is Johannes Baumgart, a German philosopher-scientist. His plan is to save humankind by going to the Moon and exploring the remains of Lunar civilization, for he is convinced that the Moon underwent the same experience at an earlier period. If the Lunarites were able to survive the cold, then maybe Earthmen will also be able to endure the encroaching ice age. To

achieve this, he plans to use the technology developed by the engineer, Standerton-Quil, and Hawthorn (who, it seems, has provided financial rather than technical support). His plans for a spaceship are brought to realization by Standerton-Quil, the narrative's other principal protagonist. To fund the construction of the rocket, Baumgart presents his ideas before the African Senate. He is supported in his efforts by Khadija Effrem-Latour and Abdul Ben-Haffa, and is opposed by Jussuf Drammen and Rawlinson. A vote is taken and the government decides to appropriate the funds necessary for Baumgart to build the spaceship.

While supervising the preparations for the expedition Hawthorn's daughter, Elizabeth, falls in love with Baumgart and he with her. She has a premonition that the venture will end in failure. The spaceship completed, Baumgart, Standerton-Quil and a senator, Sir Archibald Plug, set off for the Moon. Before leaving, Baumgart sees Khadija to thank her for her support in the Senate. Khadija has fallen in love with Baumgart, and it is implied that Baumgart spends his last night on Earth with Khadija. Unfortunately, the ship and crew are lost. Khadija dies shortly afterwards, and Elizabeth Hawthorn retreats to a nursing home where she dies years later.

This story is an exception compared to the most of the corpus: it is one of the few that has an "unhappy" ending, both from the scientific and love-interest point of view. The focus of the narrative is centred on science for the good of humanity rather than explicitly for the benefit of the German race, which is the rule in the other narratives. The story is rather internationalist--e.g., it places a higher value on humankind in its global aspect than on one nation or race. This is the only narrative where a non-White scientist, Abdul Ben-Haffa, is viewed

favourably, as opposed to the prejudiced White scientist Rawlinson.

Interplanetary Bridges by Ludwig Anton

The protagonist group consists of Lindner, Meixner, and Taussig, scientist-inventors, and Martin, the financier of the invention. The story begins in Germany in 1919 with the three scientists visiting the new German War Minister to present their discovery, a metal oxide which they have named "varium": they wish to develop an airship-cum-submarine principally for peacetime use, but for war use too, if necessary. Because of the Versailles peace treaty conditions, their plans cannot be developed by an official organ of the government. However, the minister secretly refers them to Martin, who agrees to finance their plans in the interests of the fatherland, since he, too, is a native German.

They withdraw to Martin's secret island in the Caribbean to build three spaceships. When the first one is completed, they take it on a test flight which it passes successfully. Martin, who is much more revengeful against Germany's World War I enemies than the others, wants to use the ship to avenge Germany against their antagonists, the English and French.

During their travels, the four come across a French colonel who has been spying on their invention. They decide to give the colonel a demonstration flight in their airship. He is overwhelmed by the experience. Taussig suggests that Germany will not use the ship against France provided that the French nation change its policy towards Germany so that the country's suffering, resulting from various peace treaties, is alleviated. They therefore propose to use the ship as a means to bully other nations: as "revenge if 'they' insist on it, if they force it upon us" (123). A confrontation takes place with a British

battleship which the Germans elude by launching into space.

They strand the colonel near the Caucasus Mountains and use the ship to visit Venus. They find Venus is similar to Earth in its pre-Cambrian period and is suitable for Germans to settle, provided that they kill the indigenous intelligent animal life. On returning to their home base on Earth, they come across some deserted islands in the South Seas which resemble conditions on Venus. They decide to use these islands as a training ground for German families before taking them to Venus as colonizers.

The Hidden Colony by Otfrid von Hanstein

This story is narrated by Heinrich Schmidt, who later appears in Electropolis. The story is that of Dr. Wenzel Aporius. While sailing to the USA, Aporius is presumed lost at sea with his fabulous machine inventions. Unknown to the world at large, the ship is not wrecked but comes ashore in an isolated part of Mexico. Unable to communicate for help, he sets up his machines with the aid of the ship's crew. Thus a fully-automated village springs up in the Mexican jungle. Eventually the ship's crew either deserts Aporius or dies of yellow fever. Left alone with his machines, Aporius hallucinates that they rise up against him and he goes mad.

His daughter, Lena, who was just a child when her father disappeared, never believes he died. She has dreams that he is still alive somewhere in the Mexican jungle. Schmidt is asked by her relations in Germany to escort her home. On the way to Cuba, where they will take a boat to Europe, they crash land in the Mexican jungle. Schmidt has by now fallen in love with Lena. They come to Aporius'

village two weeks after Aporius has gone insane, and the story is reconstructed from his journal. They eventually find Aporius hiding in a shack on the beach, outside the perimeter of his village, where he has taken refuge from his machines. The narrative ends with Lena about to leave for Jamaica so that her father may convalesce. Schmidt sorrowfully parts with Lena. In Electropolis, the reader learns that Aporius died and that Lena contracted yellow fever and subsequently died.

The Shot Into Infinity by Otto Willi Gail

The protagonist of the narrative, Korf, a German engineer, has developed the rocket and powder fuel necessary to put a man in space, but he is unable to develop his ideas because of a lack of money in "impoverished Germany." His plans are stolen by his Hungarian assistant, Natalka, who modifies and gives these plans to her father Dimitri Suchinow, a Russian scientist. Suchinow, funded by the Rumanian tycoon, Romano Vacarescu, builds the rocket and launches it with Natalka as pilot. But the rocket uses too much power on take-off and cannot return to Earth.

Korf, in the meantime, has realized that the powder-fuel system would cause problems and has refined the system using liquid fuel. When the German public learns of the disabled first ship, they send money donations so that Korf can build his improved version of the rocket and rescue the stranded "Skoryna" (since Natalka is in disguise).

The second rocket takes off piloted by Korf and aided by his brother-in-law, Sam, his assistant, Berger, and two other crew members. They later find Suchinow has stowed away on the ship, though they do not realize that his concern is for his stranded daughter, Natalka/Skoryna.

After being stranded for six months, Natalka's ship is rescued; she is still alive, though weak, thanks to a state resembling suspended animation. Korf, Sam, and Berger are surprised to learn that they have rescued Suchinow's daughter who is also Korf's assistant and stole his original plans. Korf forgives Natalka's actions when she explains that she stole the plans only because he was unable to develop them for lack of money. Suchinow leaves Korf's ship and enters the disabled ship for re-entry into the Earth's atmosphere. He unfortunately burns up on re-entry and Natalka dies from gravity's effects on her weakened body. Korf and his crew return as heroes and he gains the support of the German people to establish the Korf Construction Company in Friedrichshafen.

Filled with technical explanations and even diagrams (in the English magazine translation) to help the reader, the story is obviously didactic in intent. Suzanne Päch notes that Gail consciously wanted to make German youth aware of the social importance of space travel and Der Schuss ins All was the result.

The Stone From the Moon by Otto Willi Gail

This is a sequel to The Shot Into Infinity. Korf, again one of the protagonists, is now constructing a solar reflector in space with the aid of his spaceships. The purpose of this invention is cited in Shot:

Far out in space...power stations shall arise, immense solar reflectors, making possible the concentration of gigantic amounts of energy at any desired spot on earth. The vast stretches of frozen polar lands can then be made fertile territory; fertile landscapes could be made barren wastes. Mankind shall be made independent of the decreasing coal supply of the earth, and any preparation for war can be nipped in the bud. Wealth and happiness shall come to the earth and let a joyful human race develop in unity and freedom. (41)

The action begins in Mexico with the narrative's other protagonist, Sir William Burns, a British archaeologist, digging for the remains of an ancient Mayan civilization. He meets Isabella, a half-breed Indian-Mexican girl, who suffers fits in which she assumes the identity of Tuxtla. At the grave of Isabella's mother, Burns finds a stone whose origin puzzles him greatly. Burns decides to take Isabella back to England with him since he is convinced that she holds the key to the secret of the stone.

In mid-Atlantic they witness a strange occurrence. The boat happens upon one of Korf's spaceships discharging cargo. Not realizing what they are witnessing, several crew members and passengers, including Burns and Isabella, put out in boats to investigate. Isabella falls overboard but is taken aboard the spaceship which takes off.

Once back in London, Burns makes further inquiries into Korf's activities in an effort to find Isabella, much to the chagrin of his long-suffering fiancée, Buddy. Burns takes off for Friedrichshafen to see Korf personally. Korf agrees to take Burns along with him on a spaceship that is about to leave and rendez-vous in space with the ship that has taken Isabella aboard. Burns and Isabella are reunited.

Spurred on by Isabella, Korf, with Burns along, takes one of his spaceships to Venus. A small satellite has been sighted orbiting Venus which Isabella refers to in her trances. Burns and Tuxtla enter the "satellite" which proves to be the fossilized remains of an Atlantean sailing ship. The ship is caught in Venus' atmosphere and disintegrates. Korf, Burns, and Isabella land on Venus. While Burns and Korf are exploring, Isabella, now completely mad, attempts to start the engines and strand the scientist and engineer. They manage to restrain

her and return to Earth.

Burns treats Isabella, who has assumed the identity of Huitaca, the wicked queen of Atlantis, as an object of his research and questions her for several days. After this, Isabella is confined to a sanatorium where she is allowed to live out her fantasy; Burns and Buddy marry; and Korf continues his experiments in outer space.

"The Eggs from Lake Tanganyika" by Curt Siodmak

This short story is a spoof on S-F narratives, and it seems arguable that Meyer-Maier dreams the events. Professor Meyer-Maier has brought four giant insect eggs back to Berlin from Lake Tanganyika. The eggs hatch and the giant tse-tse flies escape through an open window. Meyer-Maier sends for his colleague Schmidt-Schmitt who has witnessed one of the flies devouring a horse. They enlist the police in their search for the monster flies and a battle ensues; all the flies are eventually destroyed.

"The Malignant Flower" by "Anthos"

The authenticity of this piece should be queried. Although the editorial remarks preceding the narrative state that "this story... has just come to us from Germany," it diverges from the rest of the corpus in its overtly sexual theme and the absence of any German agents or any scientists. The story is also strange in that the editors saw fit to support the authenticity of its content with photographs reprinted from another of Gernsback's magazines Science & Invention. Moskowitz (Explorers 227) credits C. A. Brandt, Gernsback's literary editor, with the translation, but one could speculate that it may have been written

by him. Efforts to locate the identity of "Anthos" proved unavailing; the name (Greek for "flower") refers to the story, which is about a man-eating flower.

The story is set in India. An Indian yogi tells Sir George William Armstrong of some demons living in a valley in the Himalayas "against whom all the weapons of civilization are useless." Although he is about to be married to Harriet Richards, Armstrong decides to go in search of these demons, together with his trusted servant, John Bannister. They reach the valley which is overgrown with exotic orchids. Armstrong, enraptured by the beauty of the flowers and their scent, is suddenly taken up by a giant flower. Bannister rescues his master by destroying the plant with an axe. They return to civilization but Armstrong is left "as if lifeless" from the experience. Armstrong rejects Harriet, is taken to the asylum, and dies 18 months later. Harriet moves back to England.

A Daring Trip to Mars by Max Valier

The narrative concerns Edmond, an engineer, his wife, Inge, and the Doctor who is Edmond's assistant. As the story opens, the three are preparing to leave in their spaceship and are being interviewed by an American reporter. Relatively few people know of the trip and they take off without fanfare. No reason or purpose is given for the trip. Once in space, tedium sets in until they encounter a comet. They manage to steer through the comet but use so much fuel to complete this manoeuvre that they have to abort the mission and return to Earth. Further perils ensue when it seems they may burn up on re-entry. However, the three parachute to safety in the Pacific and are rescued by airplane. Aboard the rescue plane is the reporter they spoke to shortly before leaving.

He is awaiting their story so that he can communicate it to the world.

This story is filled out by much scientific and technical observation. It is obviously a didactic piece: it was first printed in Die Rakete, a publication of the "Verein für Raumschiffahrt" (Society for Space Flight), of which Valier, together with the scientist Hermann Oberth, was a founding member. The story was later printed separately as a Sonderdruck (special offprint). Preceding the story in this printing is an appeal of the Verein to support research into space travel, written in much the same tenor as Gernsback exhorting his readers to spread the word about SF.

Electropolis by Otfrid von Hanstein

Fritz, the narrator-protagonist of the story, is unemployed and looking for work in Germany when he finds himself mysteriously hired and whisked away that same night to Australia. He is transported to his new job by airplane which, in the last stages of the trip, is controlled automatically from his destination. He arrives in the Australian desert and meets Heinrich Schmidt, who turns out to be his uncle.

Schmidt was a hunter of birds of paradise in the Australian outback when he came upon a find of radium. He bought the land from the Australian government, mined the radium, and sold it in the States. This has provided him with the capital to realize his plans for a fully-automated future city which he will build with Fritz and 12 other German engineers. The Australian government realizes too late that it has sold a valuable piece of land and want to tear up their agreement with Schmidt. He refuses and they declare war on him. Schmidt is able to defend his "nation" with defensive barrier beams and other technological

means which afford him superiority over the untrustworthy Australians.

However, four of the engineers, in league with the Australian government, try to undermine Schmidt. They fail and are killed in an explosion. When the Australians realize they cannot defeat Schmidt, they ignore his presence and set up a news blackout regarding the affair. Unfortunately, Schmidt is caught in the same explosion as the four engineers and, despite the efforts of the friendly though cannibalistic Aborigines, he dies, leaving Fritz in command. Fritz sends for his friends and their families and a "New Germany" arises in the Australian desert.

Between Earth and Moon by Otfrid von Hanstein

The German engineer, Waldemar Apel, has built a rocket with money provided by the American petroleum king, Joe Allister. The rocket will be piloted into space by another German engineer, Dr. Egon Helmstätter, one of the narrative's protagonists. Allister's daughter, Irene, is in love with Helmstätter.

The rocket has been constructed on an artificial island called New Atlantis which lies in the Indian Ocean. The rocket is ready for its trial flight but due to the meddling of three reporters, a Japanese, a German and an American, the rocket accidentally takes off with Helmstätter, the German and American reporters aboard. The Japanese reporter gets out of the ship just in time and is subsequently blamed for the accident.

Because of the accidental take-off, too much fuel is used. However, the three successfully land on the Moon, and Helmstätter is certain he can find the necessary pure oxygen and pure hydrogen to make enough fuel to take off again. While in space, a hierarchy develops

between Helmstatter and the two reporters. Korus, the German reporter, becomes Helmstatter's second-in-command and confident: before becoming a reporter Korus studied medicine and worked as a hospital assistant (40), thus giving him quasi-scientific status. Right, the American reporter, contemplates suicide when they become stranded temporarily on the Moon and tries to kill all three of them when their chances of returning to Earth seem slim. But he does redeem himself later by saving the life of Helmstatter and Korus.

They take off from the Moon but with a force that destroys their spaceship's navigation controls. They manage, however, to signal to Earth. Meanwhile, Waldemar Apel, the second protagonist, has been building another rocket with Irene Allister's inheritance. They see Helmstatter's signal and go to the rescue. The five return to Earth in the second rocket, landing in San Francisco bay. They are feted as heroes of the USA and Germany. The reporters are offered fantastic sums for their stories; Irene and Helmstatter marry.

Druso by Friedrich Freksa

The story is reported in the form of a journal written by Alf Bentink. The narrative begins in 2300. Society has become highly organized with humankind striving for greater intellectual and scientific prowess. "Human gardening" is practised, whereby only fit children are allowed to live, though exceptions are made for children of exceptionally intelligent parents. Alf Bentink and his wife Judith are both such exceptions.

This society has developed an experiment called the "Deep Sleep." Every 99 years eminent scientists are put into suspended animation and

reawakened by future generations in order to provide a living link in human knowledge. When she is requested to take part in the "Deep Sleep," Judith is pregnant, so Alf requests to accompany her. The vault in which they sleep is located beneath the ancient city of Aachen, the centre of Charlemagne's empire.

As a result of intervening events, the batch of sleepers of which Alf and Judith are part, sleep 283 years. They are awakened accidentally by an expeditionary force from Boothia Felix, a community of freedom fighters located in the frozen wastes of the Arctic. Only the Bentinks and two others survive out of 75 scientists. They, together with the scientific community of Boothia Felix, are the narrative's protagonists. They are told that the Earth has been subjugated by the robber star Druso and its insect-like inhabitants. This happened when scientists of their own age, exploring the outer planets, came across the Drusonians, who were so advanced that they were able to steer their planet like a spaceship. Communication with these beings was to bring about a type of new golden age on Earth. Instead, Druso drained the Earth of much of its electrical power and enslaved the human race, forcing it back into medieval conditions. The Drusonians have established themselves as gods and perpetuate wars between the tribes of Earthmen to prevent them from challenging the Drusonians.

However, the Drusonians are unable to withstand cold temperatures. This is why Boothia Felix flourished and was reinforced by refugees from the warmer zones. This community of Atlanteans, as they refer to themselves, has preserved as much scientific knowledge as possible but has been unable to strike against the Drusonians in a concerted manner. With the help of the ex-sleepers, they now plan an uprising.

Their opportunity comes when Judith's child, Urania, who has become

a symbol of liberation for the Atlanteans, is kidnapped and taken to Druso. Judith tries to save Urania but is also captured. A rescue party is mounted led by Alf, Flius, another sleeper scientist, and his love interest, Irmfried. The attempt is successful and the five return to Earth in a Drusonian ship. The Atlanteans attack Drusonian bases on Earth and sever Druso from the Earth. (Druso had been linked to Earth by means of magnetic beams; it now also undergoes an uprising of transplanted Earth slaves.) The Atlanteans establish themselves as the new gods, forbid war, settle and educate the primitives. Europe becomes the new Atlantis.

Utopia Island by Otfried von Hanstein

Six German engineers mysteriously disappear from various German cities. They are soon forgotten by the world. Another expedition of German scientists and engineers prepares to leave Germany to investigate the islands of the Pacific. In seas off South America their ship is caught in a storm. The scientists and engineers think they see someone on one of the deserted islands and decide to investigate. After they are lowered in a boat, the ship is driven back out to sea. The scientists and engineers are stranded on the island which they eventually learn belongs to the American, Mr. Cook.

On the island, they are welcomed by his assistant, Bob White, who tells them that the storm was artificially induced so that they could be brought to the island. White tells them that their assistance is required on "Santa Scientia" (Utopia Island). The reader learns about the island in the same way as the scientists and engineers do: from White's journal which is read to them from a speaking machine. The

island is one of technological marvels: everything is fully automated. There still remains much work to be done and the engineers are given a carte blanche to incorporate their ideas into the ideal city of the future, started by the six engineers who mysteriously disappeared.

The island originally belonged to a country called Puitu. Cook bought the island from the Puitu government with Inca treasure discovered in a grotto on the island. A German scientist called Professor Alesius discovered the island and treasure but died just as he revealed the treasure to Cook and his secretary, Bob White. The protagonists, Cook and White, vow to carry out Alesius' wishes to use the treasure and island for scientific research. ---

Unknown to White and Cook, a negro, Sam, who came to island with them, witnesses the discovery and eventually makes this story known to Joao Ferreira, the son of the Puitu president. A conspiracy ensues between Sam, Joao, and his cronies to carry out a coup in Puitu. To ensure Puitu's independence from US imperialism, this group of antagonists needs money which the Inca treasure on Santa Scientia would provide. They therefore set about infiltrating Santa Scientia to obtain the treasure. Their first attempt fails. However, they plan a second attempt during the sports festival which will mark Santa Scientia's opening to the world.

The festival, the brainchild of Elsa Dorn, White's cousin, is an opportunity for the scientists and engineers of Santa Scientia to show off their technological prowess to the world. Elsa sends out invitations to selected persons who may later wish to apply to work on Santa Scientia. The technological advances of Santa Scientia amaze the outside world. The conspirators' second attempt is foiled. The island becomes a world university oriented towards the practical applications

of technology to benefit humanity.

In the Year 8000 by Otfried von Hanstein

The society of the year 8000 is a highly organized one. Women, when they reach maturity, have to decide whether they will become working "Knabinas" (a neologism meaning roughly "boy-girl") and develop their bodies through exercise to achieve an almost sexless appearance, or become professional mothers, having many children by several fathers who are designated to them. The society is an emotionless one where a man's worth is equal to his ability to produce: in fact, man is likened to a machine.

The Earth is divided according to three main racial types: Blancos (whites), Flavos (yellows), and Nigros (blacks). The Whites are supreme in intelligence and practice population control. The Yellows and Blacks are always at each others throats and do not practice population control: consequently, the Whites live in fear of being overrun by the other two races. Of the three races, the Blacks are viewed as the lowest; they are described as being 6000 years behind the Whites.

Against this emotionless society, Dr. Theodore Werner is a prophet advocating a return to 20th-century values and structures where humans are allowed to choose their own mates, fall in love, marry, have children and live in a family unit. His only true follower is Will Gernhold (also spelled Gernholdt in the translation). Werner wishes to found a new race with Gernhold but has no like-thinking mate for him. The solution presents itself in the form of Bela Wilson. Bela is just arriving at maturity and must decide whether she will become a professional mother, which she seems most suited for but finds

repulsive, or a Knabina. She spends some time at her uncle's farm, Santa Machina, in Mexico to see whether she would prefer becoming a Knabina. Santa Machina farm is a fully-automated establishment that Bela is expected to supervise. When left alone, she becomes afraid of the machines. She decides to go to Germany and requests to work for Grando Blanco, her cousin, with whom she has fallen in love.

Grando Blanco, the finest White engineer of the age, is planning to drill ~~connecting~~ tunnels between the three White continents (Europe, USA, and Australia). While she is assisting him in his drilling projects, the two are caught underground by a mineshaft that collapses. They are rescued by Werner since the cave in which he lives adjoins the tunnel Blanco is drilling. Blanco and Gernhold are subsequently caught in an underground explosion which injures both men. Both seemed doomed to die: a fragment of stone hits Blanco just over the heart; Gernhold suffers a crushed skull. Werner decides to transplant Gernhold's heart, which is strong and healthy, into Blanco's body. The result is that Blanco acquires Gernhold's emotions yet retains his leadership qualities. He becomes the leader of Werner's new race. Once Werner has effected the transplant, he vows never to operate again, unites Bela and Blanco, then dies.

Bela and Blanco return to Santa Machina farm and assume an idyllic lifestyle. "They lived contentedly and confidently" as a family, raising their own children and tending the farm with the aid of machines "to produce nourishment for the human race" (371). Grando builds the first church to be constructed for thousands of years and becomes the first minister of the new race.

The Final War by Carl W. Spohr

Similar in plot and mood to a hyperbolic All Quiet on the Western Front, this story's emphasis is on the prolonged horrors of a futuristic super-war with bombing, poisons, etc., and on the inventions of either side to prolong the hostilities. A nuclear holocaust finally takes place and society begins again from a primitive tribal system.

The central agents of the narrative are Burke and Young, two soldiers whose experiences are recounted. Burke is crippled and finally dies, while Young temporarily becomes an assistant to the physicist Doehler, and finally the main organizer of post-holocaust life. Doehler discovers a super-explosive which he realizes will be misused by the military authorities instead of bringing an end to war. He tries to withhold his discovery but is tortured and sent to a work camp. The narrative is critical of the role of big business, the military, and the dictatorial state in wartime.

"Garfield's Invention" by Leo am Bruhl

Set in New York City, this short story concerns a machine that is "a novelty in chemical engineering, which, if practical, will revolutionize the feeding of the entire world and will confront economists with totally new problems" (643). Jefferson is sent to evaluate the the viability of Garfield's machine, but Garfield, suspicious of everyone, holds Jefferson prisoner until he will be paid 80 million dollars for the invention. Jefferson escapes by causing an explosion in which the machine is destroyed. Garfield is arrested by the police. Jefferson carries with his job of evaluating the viability of such projects.

"The Secret of the Microcosm" by F. Golub

In this short story, scientist Robert Swenson invents a machine--a type of microscope--which allows the viewer to see the nuclei of atoms. Swenson demonstrates the invention to his friend, the narrator. Unfortunately, the machine lacks a safety valve and explodes. Swenson is killed; the narrator spends a month in hospital but tells no one of his friend's discovery.

The story is built on the analogy between God looking down upon his universe and the scientist looking into the microcosm. But the similarity is then taken back by the explosion.

Cioffi's tripartite scheme, mentioned in Chapter One, can be adapted to accommodate all these narratives and to help divide them along ideological lines. In doing so, some pertinent differences between US and German SF of the period can be highlighted. In that scheme, two of the 12 novels are "subversive" (i.e. liberal), 9 are "status quo" or conservative (including Anton's extreme right-wing contribution), and one is in between.

Bürgel's Cosmic Cloud can be classed as an example of the liberal mode. The anomaly is not expelled but is incorporated and the fate of Earth is left unresolved at the end of the narrative. Spohr's Final War would also be included in this category in line with Cioffi's definition that holocaust stories, where the society is reduced to zero and has to begin again, belong here.

The Cosmic Cloud is the most humanistic, indeed social-democratic, narrative of the corpus. First, the novel is the most ambitious attempt in this corpus to view a nationally and racially egalitarian world;

indeed, "Africans" (Arabs and Whites rather than Blacks) are the dominant political unit in the world. Second, the failure to avert the encroaching disaster leaves the reader to draw a pessimistic conclusion about technological "progress." This is the only narrative to end on such an unmitigated pessimistic note. The Final War is a liberal, pacifist work discussing the interaction of science with big business and the bureaucracy and touches upon the scientist's social responsibility. In the body of this corpus and in German SF of the period, both express a minority ideological view of the social reality.

I would further place The Hidden Colony between the conservative and liberal groups because of its worker-machines that "rise up" against their creator and destroy him as well as for the ambiguity surrounding the future of the hidden colony: will it or won't it flourish? This is the earliest of von Hanstein's works in this corpus; the later works leave no possibility for such an "uprising" nor are the endings unresolved.

The "status quo," as Cioffi states, was the earliest of the S-F formulas. Its structure could readily be identified with other popular literary forms (mystery, war, spy narratives, etc.), it was the most easily worked one, and the most "saleable." As in Cioffi's US sample, this category includes the bulk of the German narratives and represents the "dominant" ideology; the empirical social structures are duplicated and validated in the narratives. In the German sample, this category contains narratives which are overtly conservative, even regressive, in nature.

The greatest number of narratives are grouped around this conservative formula; they are a moderate expression and acceptance of the contemporary socio-economic situation i.e., of the capitalist

structure in a democratic society. An example is The Hidden Colony, where the stranded Aporius imports all the familiar capitalist structures into his community. To set up his machine farm in Mexico, "The only thing needed is power, and time, and labor to make the installation" (1105). The enterprise is to be operated like a company with shares and to be profit-motivated: as shareholders "... the three hundred men on the ship will all become rich if it succeeds" (1106).

In some narratives, the German social structure is not challenged at all (Between Earth and Moon, The Shot Into Infinity, The Stone From the Moon); or, it is questioned from the Right--often by removal to another fictive reality where a semi-solution can be offered (The Hidden Colony, Utopia Island, In the Year 8000, Electropolis, Interplanetary Bridges). For example, In the Year 8000 affirms the status quo of 20th-century structures and values by juxtaposing them to the "revolutionized" society of the year 8000 seen only in its negative aspects (the complete mechanization of society, repulsive emancipated women, absence of family units, etc.). The narrative also questions the value of science and technology: "mechanized" future society spawns unemotional beings similar to machines and is based on man's efficiency at a specific task--obviously an extension of the division of labour. As Cioffi asserts, in many of these stories "such values as pertinacity, courage, steadfastness, loyalty, and love are cast in a positive light..." (55). Ultimately these values bolster and validate empirically dominant social values, and Cioffi suggests that the purpose of this fictive structure was to mollify the readers' fears vis-à-vis their quickly changing world:

From 1890 to 1930, the world had known a number of crises--a devastating world war, a huge population explosion, and the start

of an economic depression; and several major technological advancements ... the general pattern seems fairly clear: there was need for a type of fiction that mollified fears about the loss of values, stability, and security in the face of widespread, nearly overwhelming change. The status quo formula, with its insistence upon society's ability to recoup its losses ... filled this need. This narrative structure implies a reactionary kind of politics, one that suggests a return to past known quantities, a preservation of pre-World War I purity. (56)

This is equally applicable to the German narratives.

Ideologically, the corpus may be divided thus:

<u>Liberal</u>	<u>Conservative</u>	<u>Regressive</u> <u>Right-wing</u>
Cosmic Cloud	In the Year 8000 Shot Into Infinity	Interpl. Bridges
Hidden Colony		Druso
Final War	Stone from Moon Daring Trip to Mars Utopia Island Electropolis Between Earth & Moon (short stories)	
"subversive"	"status quo"	

Since only the aliens in Druso make the story representative of the "other world" formula, I am positioning it, as far as its ideological horizons are concerned, as a recasting of the "status quo" category. Druso advocates survival of the fittest and suggests that militarism needs to be propagated. I therefore place it between the conservative and the right-wing points on its narrative basis. Quite clearly, Interplanetary Bridges is regressive and the most right-wing text in my corpus. The author expresses his discontent of Germany's contemporary political situation--the fact that the country is now a republic--and calls for a return to the monarchy of Wilhelm II and the restoration of Germany's pre-war prestige. The principal agents' secret subversive political activity is anti-socialist with a tendency to fascism.

2.2. To complete this introductory chapter to the German narratives and also to partially support my argument for the above ideological division of the narratives, I am including here brief biographical sketches of the various authors. The following sketches represent the sum total of information on the authors from the reference works listed below. In addition to biographical information, I have listed main secondary literature and cited some of the authors' other works. "Other works" have been included on the basis of their frequency in cross-reference and their translation into other languages (ascertained through the National Union Catalog). Day's The German Bestseller is useful only for authors whose books reached 21,000 copies or more. Surprisingly, the only novel listed is Bürgel's Stern von Afrika (Cosmic Cloud), which had sold 22,000 copies by 1930; no copies were printed between 1931 and 1935; between 1936 and 1940, a further 38,000 copies were sold resulting in a total sale of roughly 60,000 by 1940. The reasons why the Nazis would allow this work to be published under their regime are speculative. The later editions may have been expurgated or the work may quite simply have been overlooked by inefficient bureaucracy. For comparison purposes, the average for 16 of Dominik's works listed is 92,000 over the same 20-year period, or Kellermann's Der Tunnel (1913) which had, by 1920, reached its 200th Auflage and, by 1940, had reached its 358th edition (Auflage--usually 1,000 copies).

To compile the following biographical sketches, I used the following sources. Full references are given in Bibliography 2.1:

ADB Allgemeine Deutsche Biographie.

- BE Brockhaus Encyclopädie.
- CA Contemporary Authors.
- DLL Deutsches Literatur-Lexikon.
- ESFF Encyclopedia of Science Fiction and Fantasy through 1968.
- LSFL Lexikon der Science Fiction Literatur.
- MEL Meyers Enzyklopädisches Lexikon.
- NDB Neue Deutsche Biographie.
- NSFD Nagl, Manfred. Science Fiction in Deutschland.
- PSIA Päch, Suzanne. Afterword to Der Schuss ins All.
- RSFF Reclams SF Führer.

Of the authors in this corpus, I was unable to find any biographical data at all for Leo am Bruhl, "Anthos," and F. Golub.

Ludwig Anton (1872-?)

A writer by profession, his novel Brücken über den Weltraum (Interplanetary Bridges) appeared in 1922 and deals with the first space flight to Venus. The novel is still relatively unknown in Germany today. A cross-advertisement for Wonder Stories Quarterly in the February 1933 issue of Wonder Stories states that Anton is "a well-known German amateur scientist" (736).

Works include: Die japanische Pest, 1922

Main secondary literature: RSFF.

Bruno Hans Bürgel (November 14, 1875-July 8, 1948)

Born in Berlin, died in Potsdam. The illegitimate child of Adolf Trendelenburg, an archeology professor, and Emilie Sommer, a milliner, he was adopted in 1877 by Gustav Bürgel, a master shoemaker. He grew up in the working class district of Zillesch, Berlin, and worked his way up

from a factory worker to astronomer. The poverty of his adoptive family apparently drove him to thoughts of suicide and prevented him from the good education he wished for. In 1895 he worked as an assistant at the Urania observatory in Berlin where, despite his lack of a formal education, he learned the basics of astronomy from Wilhelm Meyer. He audited university lectures, given by the astronomer F. W. Förster, and his extensive reading formed Bürgel's conception of the world which he began to popularize in works from 1898 on. His need to explain the sciences, especially astronomy, not only had a scientific and aesthetic basis in the contemplation and explanation of events in the universe, but also an ethical one.

Bürgel wrote 21 books which were translated into nine languages. He gave lectures and was the author of over 1,000 articles popularizing science. Ernst Haeckel designated his chief work Aus fernen Welten (From Worlds Afar), which appeared in 1910, as the best popular work on astronomy. Bürgel modestly recognized his mediatory role between academic researcher and mass popularizer, and opposed astrology and superstition. With Bruno Wille, Wilhelm Bölsche, and his patron Wilhelm Meyer, he was a popularizer and champion of mass education. He used his political affiliation as a Social-Democrat to try and bring a greater balance between the classes. Even today Bürgel's writings are still sought after in large numbers by his wide readership.

Works include: Aus fernen Welten (astronomy), 1910
 (also translated into English, French, Italian,
 and Spanish)
Vom Arbeiter zum Astronomen (autobiography), 1919
Die seltsamen Geschichten des Dr. Ulebuhle, (tales)
 1920

Main secondary literature: DLL, NDB, RSFF.

Friedrich Frekxa (pseudonym of Kurt Friedrich-Frekxa)

Frekxa was born in Berlin on April 11, 1882 and died in the same city on July 18, 1955. The son of a salesman, he studied in several European countries. He lived for a time as a freelance writer in Munich, then Berlin. For a time he worked for the satirical newspaper Phosphor, which he co-published between 1919-20. Besides several dramas, he wrote a series of stories and novels, which included several S-F short stories, such as "Das Land der Normalmenschen" (1919), as well as the S-F novel, Druso oder die gestohlene Menschenwelt (1931). However, the novel is also considered as racist (NSFD).

Works include: Caesars Stunde (5-act drama), 1921
Freiheit (novel), 1919
Paschnas Geheimnis (crime novel), 1920
Von Gestern bis Morgen (novel), 1940

Main secondary literature: DLL, ESFF, NSFD, RSFF.

Otto Willi Gail (1896-1956)

Born in Gunzenhausen/Mittelfranken, died in the USA. A popular writer although he wrote relatively few S-F stories. Only a few details are known about his life. After studying electrical engineering and physics at the Technische Hochschule in Munich, he worked as a science journalist. He put together several books about physics, astronomy, and space travel. His three S-F novels all centre around one theme: space travel. He was a friend of the rocket pioneer, Max Valier (q.v.), and consulted him about the technical details of his stories (e.g. the use of Valier's powder fuel and liquid fuel in The Shot Into Infinity).

Works include: Hans Hardts Mondfahrt (juvenile), 1928
 (translated as By Rocket to the Moon, NY: Sears, 1931)
Mit Raketenkraft ins Weltall: Vom Feuerwagen zum Raumschiff (on rockets, aeronautics), 1928

Main secondary literature: ESFF, PSIA, RSFF.

Otfrid von Hanstein (September 23, 1869-February 17, 1959)

Hanstein also worked under the pseudonym Otfrid Zehlen. He was born in Bonn and died in Berlin. Son of the botanist and university professor, Johannes von Hanstein, he was a freelance writer, as well as an actor and theatre director in Nürnberg. He collected material for his geographical and travel books, historical novels, and children's adventure books on numerous trips in North and South America as well as in the Orient. His novels also deal with Germans abroad and his children's stories have thrilling action tied in with descriptions of foreign lands and customs. He was extraordinarily productive, writing about 200 novels between 1906 and 1956. Such an output would no doubt call for some overlay and repetition of themes or scenarios, as the limited sample of this thesis reveals. He wrote in various genres: juvenile adventure, crime novels, war novels, a sports novel, books about his travels, etc.

Works include: Die Feuer von Tenochtitlan (juvenile), 1919
Im Reich des Goldenen Drachen (juvenile adventure, 3 vols.) 1919
Vom Segelschiffsjungen zum Lloyd Kapitän (memoirs), 1928

Main secondary literature: DLL, MEL, RSFF.

Curt Siodmak (1902-)

Siodmak was born in Dresden in 1902. He gained his Ph.D. from the University of Zurich in 1927 and did graduate work at the Technische Hochschule in Dresden and Stuttgart (1929-30). Between 1925-33, he worked as a railroad engineer and factory worker in Germany as well as a

freelance writer, screen writer, and motion picture director.

Between 1933-37, he worked for Gaumont-British (motion picture producers). Problems with the Nazi authorities compelled Siodmak to leave Germany for France in 1937. From France Siodmak went to London and finally settled in the USA. In the USA, he was able, thanks to his fluent English, to make himself a name as a screenplay writer, director, and producer. He has written more than 30 novels, of which about 10 are SF. These include F.P.I. antwortet nicht (1931), which was made into a film in 1933 by UFA. His S-F novel Donovan's Brain was extremely successful and appeared in German translation as Der Zauberlehrling and later Donovans Gehirn. As a film director, he directed the S-F film The Invisible Man Returns (1940), The Magnetic Monster (1953), and Riders to the Stars (1954) for which he also wrote the screenplay. Other films followed, mainly in the horror genre as, for example, Bride of the Gorilla (1951). As a director Siodmak is overshadowed by his brother Robert Siodmak, who has turned out such film classics as The Spiral Staircase (1945). Like his brother, Curt Siodmak returns periodically to Germany where, among other projects, he wrote the screenplay for the film Das Feuerschiff (1963) for which he won the Bundespreis for Best Screenplay in 1964. More recent S-F offerings from Siodmak include Skyport, Hauser's Memory (a book version of the film Donovan's Brain), and The Third Ear.

Works include: F.P.I. antwortet nicht, 1931
Stadt hinter Nebeln, 1931
Rache im Aether, 1932
Donovan's Brain, 1943
Skyport, 1959
Hauser's Memory, 1958
The Third Ear, 1971

Main secondary literature: CA, ESFF, RSFF.

Carl W. Spohr

Data were not available other than an editorial comment in Wonder Stories (March 1932) preceding The Final War, which states Spohr was an artillery officer in the German army in World War I.

Max Valier (February 9, 1895-May 17, 1930).

Born in Bozen (Bolzano), Valier was killed in Berlin while carrying out a rocket experiment. A German engineer, writer, and right-wing propagandist of Austrian descent, Valier wrote various papers on rocket technology and built a rocket-driven car with Fritz von Opel in 1928. In 1928 and 1929 he constructed a vehicle which was powered by powder rockets and which, unmanned, reached a speed of 380 km/h. After that, between 1929 and 1930, he experimented with liquid fuel rockets. The first test of a rocket-powered vehicle using liquid fuel (liquid oxygen) took place in 1930. In countless publications (e.g. Der Vorstoss in den Weltraum, 1924) he supported the idea of space travel. He was also Chairman of the "Society for Space Flight," and toured Germany lecturing about the end of the world, Atlantis and Lemuria, Glacial Cosmogony, and the breakthrough into space. In 1929, he tried to interest Hitler in the military potential of rockets. Valier has a crater on the far side of the Moon named after him.

Works include: Weltuntergang (cosmological treatise on the destruction of the universe, cosmogony, and New Testament Revelation), 1923

Der Vorstoss in den Weltraum, (rockets, aeronautics curiosa and miscellany), 1924 (later retitled Raketenfahrt, 1928, 1930).

Das transzendente Gesicht: Vom Zusammenhang zwischen Physis und Psyche in der Welt

(transcendentalism), 1931

Main secondary literature: BE, MEL, NSFD.

These sketches are, in some cases, still incomplete and an effort needs to be made to trace those (apparently) minor authors, am Bruhl, Golub, and "Anthos"; more data is obviously needed for Spohr. However, this contribution is as yet the only time such data have been assembled for a corpus of non-American authors who appeared in the US S-F magazines.

NOTES

¹ This thesis will only examine fictional items. There are also three non-fictional pieces featured in these same magazines: "The Problems of Space Flying" by Capt. Hermann Noordung A.D., M.E. (Science Wonder Stories, July 1929), "Airports for World Travel" by Hans Dominik (Air Wonder Stories, January 1930), and "Berlin to New York in One Hour" by Max Valier (Air Wonder Stories, February 1930).

² According to Robert A. W. Lowndes in Foundation 35 (Winter 1985/86): 68, "April 1926" denotes the date the magazine was to be taken off sale. All issues therefore actually went on sale one month before the date shown on the cover. The first issue of Amazing thus appeared in March not April 1926.

CHAPTER THREE

AGENTIAL ANALYSIS

3.0. Since one of the central aims of this thesis is to examine the view of science in the German corpus, the principal agents studied will be the scientists and engineers. This by no means excludes other agential groups, but these other groups will be examined in relation to the scientists and engineers.

3.1. The corpus yields 35 individual narrative agents of some significance in the surface actions who are scientists or engineers and three agential groups of engineers. Using Suvin's hypothesis for agential analysis, I established that none of the agents achieved full character status. All the agents operate at the type (as well as the actantial) level of Suvin's table (see page 15), i.e. they are defined by fewer than six traits, no two of which are culturally contradictory.

The "straight" types are easy to distinguish. These are either agents--such as the "good" engineers of Electropolis--who are not defined beyond their names, nationality, and speciality, or S-F "stock" types--e.g., Edmond in A Daring Trip to Mars, the superhero-scientist (the scientific Übermensch), or Garfield of "Garfield's Invention," the mad or eccentric scientist type.

In some narratives two or more agents act as complementary types: e.g., in The Cosmic Cloud Johannes Baumgart, the dreamy scientist-philosopher, is complemented by Standerton-Quil, the dashing energetic engineer who realizes his plans. The same sort of "split agent" is also found in In the Year 8000, where the dreamy Will Gernhold is complemented by the dynamic Grando Blanco. In the same story, Grando

Blanco undergoes a transformation from one type to another after he receives Gernhold's heart in a transplant operation: his leadership quality is supplemented with Gernhold's virtuous qualities so that he is able to become the leader of a new race of integral human beings.

There is also a group of agents which I will term "impure" types and define as a category of types that act in a somewhat unexpected manner, given their other traits, but not in a manner really contradictory to those traits. An example of an impure type is Korf in Gail's The Shot Into Infinity, who begins as the standard idealized engineer: he is young, unmarried, brilliant, charismatic, physically attractive, and so forth. However, he shows moments of perturbation when he thinks of his love interest, Natalka: he becomes quiet, pensive, and irresolute--qualities which are untypical of his usual personality. His brother-in-law Sam remarks that his behaviour becomes "flighty" (72) at such moments.

Lastly, there are only a few agents which could be proposed for character status. Possible candidates include Suchinow and Natalka (Gail's Shot Into Infinity), Werner (von Hanstein's In the Year 8000) and, perhaps, the "bad" engineers of Electropolis. However, closer examination reveals that their seemingly contradictory traits are not sustained in the text, or that the contradictory trait is part of their actantial requirements.

In the case of both Natalka and Suchinow, the contradictory feature is not sustained. Natalka is an engineer and her father, Suchinow is a scientist; both are virtuous enthusiasts of space flight. However, both are also thieves, having stolen Korf's plans in order to build a spaceship that will put the first man in space. The trait "thievery" or

type "thief" would seem to be contradictory to the idealized view of what "scientist" and "engineer" means in this corpus. However, in The Shot Into Infinity, Nataalka confesses to Korf that her real purpose in stealing his plans was to advance scientific knowledge. Suchinow is presented in such a way that from the beginning of the narrative, he regrets deciding to work for Vacarescu, the Rumanian banker, who is financing him and who is presented in a most unsympathetic, exploitative, and personally repulsive manner so that the reader feels sympathy for Suchinow. Another agent, Sam, says that Suchinow is not a bad sort but only the victim of his own immeasurable ambition; further, non-Germans cannot be expected to be as monolithically positive as Germans. Above all, he redeems himself with fatherly love for the fully redeemed Nataalka. Important here is the "hegemonic" or dominant view of the scientist/engineer: a scientist who furthers scientific knowledge cannot really be unscrupulous. For considerable stretches of the text the reader's perception of both Nataalka and Suchinow is contradictory, yet they are finally not characters.

There are four engineers in Electropolis whom I have labelled "bad" since they try to undermine their German employer in favour of the Australian (i.e. British) authorities. Again, this is contrary to what is expected of the virtuous engineer or scientist. This time, the agents are not misguided figures furthering scientific knowledge; indeed they are presented as unsavory drunkards and gamblers. They are viewed as distasteful and undignified types, principally by the narrator. These traits become dominant and override their "German-ness": there can be bad eggs in any basket. This group, I find, is not so important for their type value as for their actantial value: they are essential to the plot. The author has to have an agent or group of agents operating

inside Schmidt's set-up that can pose a potential threat to his creation, Electropolis. Since only Germans are allowed there, this confrontation has to emerge from their own ranks. Additionally, when their actantial function of Antagonists is over, not surprisingly, they are killed in the attempt to overthrow the good guys (good Germans). Thus, they show that opposition to Schmidt and his marvellous inventions is futile.

Werner in In the Year 8000 seems to be the only agent that approaches character status. At best, however, he is halfway to becoming a character. He is a mixture of types: somewhere between the standard brilliant scientist and a Holy Fool or Prophetic Elder (well known as a type in German literature from Schiller on). The segment of the narrative which would qualify him for consideration as a character is his moral conflict over the transplant operation he performs. The implications of such an experiment are, however, never fully developed in the text, and his dilemma is undercut by further developments in the narrative. Finally, any doubt as to whether this agent compromised his status and responsibilities as a scientist is resolved by his noble death.

In conclusion, relatively few agents aspire to character status because they have no contradictory traits or their anomalous trait can be qualified. It must therefore be assumed that these few cases are unsatisfactory attempts on the authors' part to bring some features of "high-brow" literature to their work. As stated in Chapter One, characters are not found in all genres nor in all periods. In particular, SF is a genre in which characters are rarely found, especially in this early period. This is not necessarily an adverse

value-judgement; only clumsy attempts at dragging in a character should be so judged adversely.

Some of the agents in the corpus are so shadowy that they are scarcely more than actants in the narrative structure, important only for their function in the action or plot. As noted above, von Hanstein's "bad" engineers fulfill such a role. Many of the agents who represent women, workers, and non-White races are treated similarly.

The agents of this corpus therefore operate overwhelmingly between the first and second levels of Suvin's hypothesis (type and actant).

3.2. The following is a discussion of the agents in each narrative together with their orientation to one another.

The Cosmic Cloud by Bruno H. Bärzel

Baumgart is the astronomer and philosopher-scientist of The Cosmic Cloud. He is German, 32 years old, with a lean, pale, "almost boyish face with its dreaming eyes," dark-haired, with "a slender, almost graceful figure." He is the opposite of Standerton-Quill: there is no suggestion of the "iron energy" of the engineer. He is timid, with a "childlike element in his nature." Baumgart is more pensive and "all his movements were calm--almost impersonal" (all on 16). He is compared to "the master-mind, Goethe" and the universal good and harmony of Weimar. He is differentiated from the rest of the scientists in this corpus as a dreamer (the only other instance being Will Gernhold in In the Year 8000). In this narrative these traits are found in Elizabeth Hawthorn, who is also a dreamer and enthusiast of Goethe. Baumgart subsequently falls in love with his "soul-mate" Elizabeth and shows the same type of maladroitness around women as Korf in The Shot Into

Infinity. He displays less superiority toward the other agents than the other scientists; this role is fulfilled in the narrative by Standerton-Quil.

Standerton-Quil is somewhat of an exception. He fits the overall type description--young, single, "one of the most adroit engineers in the government service," (9) with a

cool, energetic face... tall and strong like an oak. His clear, penetrating eye, the steadfast, resolute expression about his mouth, the deep vertical furrow of thought above his nose, his studied movement, bespoke the man of action. He was evidently one who looked at life from a realistic standpoint without allowing sentiment to enter his calculations; who carried out any plan quietly and resolutely, and who rejected all plans calmly and decidedly when they appealed [sic] to him as hopeless. (39)

However, he is also non-German (his nationality is not given--the name seems British). As co-inventor of the rocket ship, he defends its conception and construction against Jussuf Drammen, the famous lecturer on aerodynamics at the University of Timbuctoo:

Theorists of Mr. Jussuf Drammen's type have caused endless delay and confusion in the history of technical progress. They are the fathers of every failure.... Mr. Jussuf Drammen may be a giant in the field of theory, but he is hardly a practical engineer, and in spite of his enormous learning he is quite incapable of even steering a baby-carriage across the street. (53)

He is also impatient with Baumgart, his "good" theorist counterpart, who designed the rocket: were it not for him, the engineer, Baumgart's fine blueprints would be worthless. The Cosmic Cloud is (together with The Final War) one of the few stories where the distinction between scientist (theorist) and engineer (practitioner) is made so sharply. The other, more conservative stories tend to combine these types.

Standerton-Quil and Baumgart are the two main scientist/engineer agents in The Cosmic Cloud. The peripheral (Satellite) scientist agents in this text are Abdul Ben-Haffa and Rawlinson. Abdul Ben-Haffa is an

astronomer and director of the Cairo observatory. He is described as "a man with a dark olive face, clean-shaven head and Roman nose ... with the easy manner of the Oriental" (52). He acts as a complement to the astronomer, Rawlinson, of the Cape observatory and puts forward opposite views to him. Rawlinson is 70 years old and White. Described as Africa's top astronomer, he complements Abdul Ben-Haffa both in appearance and views.

The two agents span the spectrum of science as an institution: Ben-Haffa represents its more progressive and open-minded aspect whereas Rawlinson, envious of Ben-Haffa and his new telescope, represents the more conservative aspect. As Ben Graachten, editor of the African Herald, describes Rawlinson: "The old man is really a little out of date... and brim-full of jealousy of everything that doesn't come from his own sky-factory" (36).

Interplanetary Bridges by Ludwig Anton

Lindner, a Prussian captain in the 1914-18 war, was also a technical officer in the artillery specializing in chemistry. He is, like his comrades Meixner and Taussig, a ready-made German hero, having been wounded in the First World War. He is unmarried at the beginning of the story but marries later.

Meixner is a physician whose specialities are comparative anatomy and microscopic chemistry. He is the discoverer of a new chemical compound which they call "varium" and which provides the basis of a new motor to power the spaceship-cum-submarine which they subsequently build.

Taussig is the third of the scientist agents. He holds a doctorate in mathematics and physics, and it is his job to plan the course of

their ship to Venus. He adopts a superior attitude with non-scientists.

Although Martin is not a scientist, his role should be looked at in relation to Lindner, Meixner and Taussig. He is described as having "a clean shaven face, a straight, prominent nose, pronounced cheek bones, piercing gray eyes, and the features and characteristics of one accustomed to quick action and obedience from his inferiors" (111). He is also "full of power and self-confidence" (112). A native German, he has become an American by choice. He provides the money to realize the plans of the scientists and is included in their group as one of their own. He procures a discharge for Taussig and Meixner and a leave of absence from the army for Lindner. He declares, "We four will simply form a coalition to do all in our power toward the reconstruction of our bleeding country, and moreover, to do so on our own unofficial initiative" (111). In his views and behaviour, he is much akin to the scientists. He, together with Lindner, shows the greatest contempt for Germany's war enemies and the most revengeful feelings. He is willing to abandon the construction of the spaceship-submarine when the group appears to discover a superweapon for war purposes: "He spoke of a coup d'état to be effected against communists and pacifists. But the cold reality of physical facts dealt him a hard blow and he was forced to abandon his ambitious plans" (118).

A hierarchy establishes itself between the four men, with Taussig and Martin, who are on more or less even footing, giving orders to Lindner and Meixner. It is Martin who first suggests to Taussig that they use the spaceship to find new worlds for Germany to settle (123), and this becomes its primary use.

The Shot Into Infinity by Otto Willi Gail

Korf is the main protagonist of The Shot Into Infinity (as well as The Stone from the Moon). He is the typical hero-engineer of these narratives: a blond giant with steel-blue eyes, unmarried, "the technical brain of the Victoria airport" (14) in Friedrichshafen, where he is employed. Although he is employed when we meet him, he has developed his plans for a rocket prior to this, when he was working for himself.

Natalka is unusual in that she is one of the few female scientists or engineers in this corpus. She is a young, pretty Hungarian engineer who aids Korf for a while in The Shot Into Infinity, and is the unsuccessful pilot of the first spaceshot. She steals Korf's plans for a powder fuel but defends herself when admitting her sins later to Korf: she acted only in the name of science. Gail mitigates her crime: "I wished nothing further than the quickest possible completion of your--our--work, the building of a space ship, to conquer the universe--with you--through you!" (71). She is fanatical in her view that science supersedes national and personal considerations: "To effect your end, stealing or any means at all should have been right to you, in order to bring to pass the wonder-work of the ages. It was a crime against mankind that national honor and trifling pride as a citizen meant more to you than this noble work" (71). Note that here, and more explicitly in other places during these conversations, she confirms Korf's superior intellect. She continues:

My father [Suchinow] would have hesitated at no crime, if it had been necessary to realize his ideal. I, his daughter, have been a thief, to advance the cause which I served. I cared nothing for my father's personal glory and still less for yours! My life was dedicated to this work, and I think I have proved that this is not mere words.

I have sacrificed [sic] more than my honor as a citizen--I gave up

happiness for the great work. (72)

After this speech, the wronged Korf, out of admiration for her deeds, considers her "a great soul" and her standing is elevated to his level. Korf's other helpers concur: Sam considers it important that Natalka is not misjudged and Berger says, "She is even better than Korf! Now I am not surprised that Korf was a bit fond of his assistant. They are worthy of each other!" (73). However, in this whole sample of German narratives, the scientific community excludes equal women. It is therefore narratively mandatory that Natalka be overcome by the effects of gravity on re-entering the Earth's atmosphere and die.

As an agent Dimitri Suchinow is formed of two distinct types: ambitious scientist and solicitous father. He is a Russian scientist and an older man. As a scientist he is described as "ambitious and doubtless talented" (29) and, like Natalka, he is viewed favourably by the author (via comments of the other agents) even though he has used Korf's ideas to build a spaceship: "I see in Mr. Suchinow not a villain but a man who has been the prey of his own immeasurable ambition...", says Sam (29). Usually he is the detached, superior scientist, but as a father, he is clearly concerned, troubled, and tormented by the fate of the disguised Natalka in his unsuccessful spaceship. In the narrative, his role is, first, to provide the peripety (he uses Korf's stolen invention to make a not fully successful attempt at space flight) and, second, to emphasize the superiority of Korf who is able to perfect his original invention for a rocket fuel and build a successful spaceship.

Berger is Korf's assistant in The Shot Into Infinity and The Stone From the Moon. He too is unmarried and German. His principal role is to have Korf explain technicalities to him, or he explains things of a

technical nature to Korf's brother-in-law Sam (and thus in both cases to the reader).

The Stone from the Moon by Otto Willi Gail

The agent Sir William Burns in The Stone from the Moon conforms to some of the typical agent traits shown by the majority of scientists and engineers. He is slender, strong, young, energetic, learned, handsome and, like Korf, becomes confused and acts irrationally around Isabella, the half-breed Mexican Indian girl. However, though White, he is not German but an English peer; though halfway to a specialist, he is an archaeologist searching for an ancient civilization in Mexico and not a "real" or "hard" scientist. These halfway traits are to act as a foil to Korf, the German engineer, and for this reason Burns is inferior in most respects (knowledge, physique, and charisma) to Korf.

Korf himself is the same type as depicted in The Shot Into Infinity: the "powerful and cheery man of action" in whose presence "all cares and doubts must be stilled... all problems and confusions were solved..." (330). In this sequel to Shot, there is no love interest to distract him (this is shunted off to Burns), and he is strictly the super-engineer type.

A Daring Trip to Mars by Max Valier

Like Standerton-Quil, Edmond is another dashing engineer. He is described as a "giant" with "clear blue eyes" (255), he is muscular "due to diligent practice in gymnastics and carefully planned training in boxing" (262), and he is German; unlike many of the other heroes, he is one of the few who is married. His leadership quality is emphasized

continually: he always knows what to do in a crisis and, on several occasions, he addresses his companions (Inge and the Doctor) as "children." They obediently follow his instructions.

The Doctor functions as Edmond's "trusted assistant" although he has a degree in medicine and chemistry. His principal function is to show Edmond's superiority. During the flight, he is pinned under some machinery and Edmond comes to his rescue. He also acts as the author's mouthpiece and possible scapegoat to speculate about Mars. Following a description of Mars and its composition, an authorial note states, "This was the doctor's opinion. But he in no way insisted on this novel theory and was frank in admitting its uncertainty" (271).

Electropolis by Otfrid von Hanstein

Fritz, the narrator of Electropolis, is a 21 year-old, unmarried German engineer. Physically, he is thin and sinewy. The nephew of Heinrich Schmidt, he eventually becomes his right-hand man.

Schmidt himself remains a rather vaguely defined agent. In the earlier Die Farm der Verschollenen (The Hidden Colony), he says he "had been working for a year as an engineer on the Culebra Cut" (913). In this story, he was a hunter of birds of paradise when he discovered a find of radium. By selling the radium in the USA, he has acquired the capital to realize his dream--Electropolis--which will be built by Fritz and the other engineers he brings from Germany. He is the benevolent older organizer who gives way to the younger German technocrats.

The eight "good" engineers of Electropolis are those who help create Electropolis and who do not plot against Schmidt. They are defined only by their names, German nationality, and speciality. They presumably carry on their work satisfactorily.

The four "bad" engineers of Electropolis, Morawetz, Stobitzer, Holding, and Kurzmüller, are described as the "best workers of all" (509) by Fritz. However, it turns out that they are drinkers and gamblers, and therefore fit henchmen for the faithless Australians. Morawetz, the leader of the group, is described as "a very clever man. He is a diligent electrical engineer with ideas of his own" (507). He also has a vaguely Slavic-derived name. The others remain undefined apart from their name, nationality, and speciality.

The Hidden Colony by Otfried von Hanstein

Dr. Wenzel Aporius is much the typical genius seen also in the other narratives. He is described as the "German Edison" (907) and is regarded in Germany as a national hero. He is presumed lost at sea in 1914 and "Germany was saddened--what could not such a man have done to help her during the hard days of the war?" (913). From the journal the narrator Schmidt finds, Aporius reveals himself as somewhat of an elitist: "There is not one of those who remains who is an educated man, able to understand my ideas" (1215). He distrusts his assistant Kruger: "It could be that he [Kruger] was an uneducated man, trying hard to express himself well, and not making a success of it" (1224). When the hidden colony receives some newspapers, Aporius wishes to censor the news in the interests of the other men since "Not every man is provided with the stability to receive unpleasant news all in a heap" (1218).

His family takes second place, behind his work. When he reads of his wife's death and his daughter's illness, he says, "I had forgotten my duties... The farm would never have grown to what it was but--they would be alive.... I was like a general, a ruler, who cannot think of

his own family" (1219).

Aporius' name suggests the philosophical term "aporia," a problem without apparent solution. When left alone with his fabulous machine inventions for a period of time, he believes that his machines are staging a revolution against him and becomes mad.

Between Earth and Moon by Otfrid von Hanstein

Dr. Egon Helmsttter is "A young man, about twenty-five years old, a slender wiry person with an energetic face and determined eyes..." (9), German, an orphan (21), unmarried but in love with the daughter of the American Joe Allister, who is providing the funds to build a rocket. He is "... completely sunk and absorbed in the immensity of his new work. He felt himself a pioneer in human knowledge and achievement." He has offered his "life to science and perhaps to the future of mankind" (9) in agreeing to fly Allister's rocket to the Moon. When the rocket is launched accidentally by some meddling reporters, Helmsttter's ingenuity continually rescues them from disaster. He is able to keep up their morale until they are rescued by his colleague, Waldemar Apel.

Described as the "ingenious inventor" (9) and engineer who "follows the ideas and plans of the German scientist, Hermann Oberth" (8), Waldemar Apel builds both rocketships in Between Earth and Moon. He is "a typically energetic German in the prime of life" whose speech is "firm, definite, and convincing" (8). When his first rocket carrying Helmsttter and two reporters accidentally becomes stranded in space, he quickly builds a second one and, aided by Egon's love interest, Irene Allister, successfully rescues the occupants of the stranded rocket.

Utopia Island by Otfried von Hanstein

The 11 scientists/engineers of Utopia Island are another more or less anonymous group of scientists and engineers who are not differentiated beyond their names and specialities. They are all unmarried and almost all of them are under 30, with "new ideas" and "daring plans" which were scoffed at or could not be fulfilled in Germany. They are taken to Utopia Island where they become enthusiastic about the plans of Cook to create an environment where scientists can work in relative tranquillity away from the pressures of the world. They all successfully carry out the mandates which they are assigned.

In his youth, Mr. Cook was also a scientist who was laughed at for his outlandish ideas. However, he is not seen to partake in any of the projects in the narrative; his actantial role is that of Mandator.

Druso by Friedrich Freksa

Judith Bentink is a sociologist who is chosen to become a "sleeping" sleeper. When she is requested to take part in the "Deep Sleep," she is pregnant. She has an important actantial role: she becomes the "Great Mother" of the Atlanteans (a sort of head priestess) and gives birth to Urania, who becomes the symbol of liberation and hope for the future. She and Urania become Values which have to be rescued by the protagonist group so that order may be re-established.

Her husband Alf Bentink is a botanist. Neither he nor Judith find much joy in their original civilized society and both long for the wild regions of South America, where they live for a short time before Judith is called upon to take part in the experiment.

The Bentinks are carried through time with two other scientists of

their own age, Flius, the unemotional chemist "who discovered the new atomic-power motor" (1078), and Hurst, a physicist who is also described as an aesthete and egotist (1112). The four function as a group, together with other scientists from Boothia Felix, with no one agent being dominant. Their scientific background becomes secondary to the action adventure of defeating the Drusonians until reasserted by Hurst. He uses their scientific knowledge to manipulate the primitive humans and to implant his politico-religious plan as the basis of the new society.

In the Year 8000 by Otfried von Hanstein

Will Gernhold is unlike most of the engineers in this corpus. An anachronism in his own society, he is described as "... a dreamer. Slender and untrained physically, there was not in his eye that energy which fired Grando Blanco ... to great deeds" (263), and he is one of the few beings that experiences emotions and is moved by beauty in a world that has evolved emotionless beings. He is the assistant of Dr. Werner who wants to use him as the male component in establishing a new race of sentient humans, if only Werner can find a suitable female for him. However, Gernhold's main function eventually turns out to be the provider of the heart which Werner transplants into Grando Blanco and which changes Blanco from an unfeeling machine into the not only strong but also feeling leader of this new race.

Dr. Theodore Werner is one of the few agents in the whole corpus who experiences any qualms of conscience about the ethics of the experiment he is about to perform (the transplant of Gernhold's heart into Grando Blanco's body): "He felt like a murderer" (365-66). Nonetheless he forces himself "to realize that death would occur anyway.

He would but hasten the process" (366). His dilemma is not explored; rather, the whole segment of Werner's uncertainty is highly melodramatic and undercut by his medical assessment that Gernhold's brain contusions would have proved fatal. However, after performing this operation he vows never to use his instruments again—for which there is little need anyway, since he has now created the strong, healthy individual who can experience emotion. He marries Grando Blanco and Bela according to the ancient ceremony and dies knowing his work is completed.

A "cool, superior scientist" (368), Werner is "A tall gray-haired man with a long, narrow visage" (265). He is an older man though his specific age is not given. This is reinforced by Bela and Grando Blanco calling him "father," perhaps partly out of respect to his superiority but also to his age. His research involves transplanting human organs to prolong life, and there is a clear suggestion that he has had such experiments conducted on himself (107). In the emotionless society of 8000, Werner is regarded by the majority as a "foolish prophet," since he preaches a return to a societal organization predicated on 20th-century mores. As a kind of "holy fool" outcast of society, he lives in a cave near Berlin.

Grando Blanco is an engineer and one of the main protagonists of this story. He begins as one type--the superior engineer--and has a second group of traits superposed on his initial qualities. At the beginning of the narrative, he is described as a "slender young man" (103), "with enthusiastic face, sparkling eyes and strong handsome body" (106). Compared to a "Greek god" (265), he is a "leader" who is "respected by all" (106). But he is also a "cold, unfeeling engineer" (367) whose worth is measured according to the work he performs. When

Gernhold's heart is transplanted into Grando's body, Grando acquires the ability to fall in love and appreciate the beauty of nature in addition to his leadership qualities. His name, of course, means "great white man."

Ben Vintros is a peripheral agent similar to the initial Grando Blanco: a hard worker and a diligent, brilliant engineer. He takes over from Grando Blanco when Blanco leaves with Bela. He momentarily experiences some emotion and contemplates an "other" life, but regains himself and dismisses ideas like friendship and grief as foolishness.

The Final War by Carl W. Spohr

The scientists Doehler and Sikorsky are both peripheral agents to the soldiers Young and Burke in The Final War. The emphasis is upon, first, the war, then the scientific inventions. After a long period of war, Young is assigned to Doehler as an assistant in the last part of the narrative.

Professor Sikorsky and his student, Fred Young, are in physical sciences at Irontown College prior to the war. The narrative shows the war has changed Sikorsky from an "elderly, kind-looking gentleman with the high forehead and twinkling eyes" to the man with the forced laugh who talks "much and fast" with eyes that have "a haunted look," who has lost "the spirit of untroubled merriment, that had been characteristic of his personality." The change is from scientist to "the champion killer in this neighborhood" (1188).

As a type, Doehler is described by Sikorsky as:

Little hunchback Doehler, a big brain with a little misfit of a body on it, but a scientist if there ever was one. A man big enough to know that there is no limit between physics and chemistry. He knows both. I heard he is after big things, and

they know it. A man like Doehler is worth more than six divisions. (1189)

Doehler is described as physically weak, but his eyes are "beautiful, deep and gentle, with a certain expression of childlike faith combined with rare intelligence" (1271). He has been allowed to carry on his research in the laboratory in order to help the war effort. However, a general remarks to him "You don't know that a war is going on," and Doehler tells Young "I think he is quite right. I have been living mathematics too long. There is no war in figures, only beautiful, unavoidable justice" (1271). Young's official role in Doehler's life is "to make him see that a war is going on and guide his efforts into useful channels" (1272). Given any means he needs for perfecting a weapon to destroy the enemy, Doehler works feverishly: "We shall kill a little while longer. Then, there will be no more suffering. Peace. And it will be brought about not by the atavistic methods of blundering generals, but by the pure logic of science" (1277). However, when his superexplosive goes off accidentally and he realizes the destructive potential of his discovery, he says to the generals "... it is too big to be played with in your childish wars. I intended to find an explosive powerful enough to end this mad game of killing, but I found a formula, that in your hands would tear the earth to pieces" (1278). He not only idealizes science, he also suggests the need for a technocracy, since the generals do not know what they have at their disposal or how to use it. Doehler is arrested by the military for sabotage and tortured:

...[Young] could have cried with helpless, despairing rage. Brutal, filthy hands had dared to defile, to torture this feeble body, that housed the most precious jewel of this brain. What were these beasts with dirty, murderous hands, these greedy robbers on their money bags, these stone-hearted upholders of preposterous traditions that ruled the world; what were they, compared to this

cripple whose mind towered above them in regions that they would never reach even in their dreams? (1276)

Doehler is court-martialed, demoted, and sent to a work battalion "in the most dangerous and unhealthy regions behind the front" (1278). Despite his warnings, the military use his discovery and bring about Armageddon. Humankind has to start anew.

Like The Cosmic Cloud, this narrative makes a distinction between the theorist (Doehler) and the practitioners (Young, Burke, and Sikorsky as representatives of soldiers or "technicians of war"). For Doehler science is "pure" science: rather naively, he appears to believe that scientific knowledge is harmless, only the application of that knowledge could be dangerous. Thus, his dilemma is one that affects scientists today: to what purposes will those funding scientific research put new discoveries? For the generals the practical application of Doehler's discovery is their means to power. In fact, it is one of the few means by which they can prove their raison d'être. Not content with having the ultimate deterrent for forcing the enemy to capitulate, the generals decide to use Doehler's superexplosive to leave no doubt that they are the victors. Between Doehler at one extreme and the generals at the other are Young, Burke, and Sikorsky who become soldiers and are trained to use the war paraphernalia necessary to their survival (gas masks, gas suits, etc.) as well as weapons. It is through this group that the uses of war technology and its physical and psychological effects are seen. Sikorsky's personality is transformed from teacher to killer as a result of nervous shock. Young and Burke are first casualties of a poisonous gas which corrodes their skin and leaves them scarred. They later suffer from "gas suit sickness" from the special protective clothing they constantly have to wear. At intervals, they are injured: Young has

his foot mangled, both are wounded by shell splinters, Burke has his leg amputated and is finally killed in an enemy bombing raid. Thus the negative effects of this science are shown on human life. Finally, Young grows into a conscious and practical user of science and technology for rebirth and rebuilding--a position diametrically opposed to the military, death-bringing and destructive uses of science/technology.

Garfield's Invention by Leo am Bruhl

Garfield is not portrayed in any detail. From his name, I assume that he is not German but American, especially since the narrative is set in New York City. He is described as "overcautious" (644) and protects his invention to the point of ridiculousness. He is called a mad scientist (647).

The Secret of the Microcosm by F. Golub

Robert Swenson is of Germanic origin, though neither his nor the narrator's nationalities are specified. The narrator is anonymous; his function is to survive the explosion and recount the tale. Having completed the construction of his invention, Swenson has become the joyous, light-hearted man the narrator had known in his youth. While working on his project, Swenson had been a "thoughtful, gloomy scientist." Swenson displays the typical elitist traits in his attitude to the narrator to whom he speaks "as though explaining something to a stupid pupil" (623).

For comparison purposes, I have taken the image of the scientist determined by Walter Hirsch in his essay "The Image of the Scientist in

Science Fiction: A Content Analysis." In this analysis, Hirsch attempted to discern the predominant features of the fictional US scientist/engineer in the period 1926-1950. His study seems to be based on magazine fiction rather than novels (which were mainly published in the 1940s), though he does not specify whether his research is restricted solely to magazine literature. At any rate, for the pre-1940 period he found that the most common type of hero in an S-F story was a physical scientist (his other categories are social scientist, professional, pilot, and military man). In the period 1926-1933, 39% of the heroes were physical scientists compared to 1% social scientists; in the pulp magazines, the scientist was one who dealt with "natural" rather than "social" phenomena. Over the whole time period (1926-1950), Hirsch found that scientist protagonists outnumbered scientist villains two to one, i.e., that the authors were much more likely to treat their scientists favourably than unfavourably. Also, the scientists were more likely to work independently than in a bureaucratic setting.

The major "social problems" these scientists had to deal with, in order of their frequency, are: a "love interest," the effects of technology (usually unanticipated), international conflict, and interplanetary conflict. The most usual means for solution of these problems in the 1926-29 period was technology and natural sciences, followed by the hero's courage and his insight and ingenuity. Between 1930 and 1933 greater emphasis was put upon the hero's courage, followed by technology and natural sciences, and then by the hero's insight and ingenuity. The majority of stories had "happy endings," denoting a certain optimism about the future.

The image of the scientist in the early period of US SF was

therefore of a fairly idealized type. This is borne out by the German sample. The scientists and engineers of the sample comprise only one botanist, one sociologist, and one archaeologist; the rest are theoretical natural scientists or engineers, or a combination of scientist and engineer. There are relatively few villains: Suchinow and Natalka--a Russian scientist and Hungarian engineer--are, as mentioned, excused in the name of science. The other group of villainous engineers is found in Electropolis, where I argued that this was due to actantial narrative necessity.

The number of German narratives which have as their focus a love interest and centre upon the effects of technology appears approximately equal to Hirsch's US sample (Hirsch does not elaborate what he means by the "effects of technology"). Only two of the 16 German narratives have a truly "unhappy" ending, where the catastrophe is not resolved ("The Malignant Flower" and The Cosmic Cloud). Equally, only two of the narratives, both short stories, are focussed around non-technical, primarily biological, devices (a man-eating flower in "The Malignant Flower" and the hatching of some giant insect eggs in "The Eggs From Lake Tanganyika").

Added to the basic features Hirsch describes, the scientist/engineer in the German narratives is specifically a young, as a rule, unmarried (bachelor or widower) German, who is extremely intelligent and committed to his work with a zeal bordering on fanaticism. The exceptions to the above are Heinrich Schmidt of Electropolis who is sixty years old, and Edmond of A Daring Trip to Mars who is the only married man. Important agents who are not German are, first, the East European Suchinow and Natalka of The Shot into Infinity, the British Sir William Burns of The Stone from the Moon, Sir George

William Armstrong and John Bannister of "The Malignant Flower," and the American Garfield of "Garfield's Invention". Except for the two short stories, the only fully cosmopolitan array of protagonists and scientists is to be found in Standerton-Quil, Rawlinson, and Abdul Ben-Haffa of the exceptional The Cosmic Cloud, and in the cast of the equally exceptional Final War. The deliberate cosmopolitanism of the latter is, according to the editorial foreword, an attempt on the author's part to make the story relevant to all nationalities. Thus, Burke's and Young's origin is not specified, though they are obviously Anglo-Saxon; Sikorsky is East European. However, the most important scientist agent of this narrative, Doehler, does have a German name.

Regarding the make-up of the scientist/engineer caste, non-Whites are generally not admitted to scientific status. The exception is The Cosmic Cloud, which features Jussuf Drammen and Abdul Ben-Haffa. Drammen is viewed contemptuously by Standerton-Quil because he is a theorist. Ben-Haffa, unlike agents of non-White origin in the rest of the corpus, is treated favourably by the author. Other than the Eastern Europeans, Nataalka, Suchinow, and Sikorsky the bulk of non-German scientists and engineers are of Anglo-Saxon descent. Non-Germans make up a minority of the hero figures and in only one case (Standerton-Quil) is there a non-German equal in stature with his German counterparts. (Rawlinson and Abdul Ben-Haffa are peripheral agents; Young, Burns, and Sikorsky are essentially the puppets of the generals and peripheral to the scientist of The Final War, Doehler; Burns, Suchinow, and Nataalka are essentially foils to Korf and stress his physical and intellectual superiority; Garfield is mad.) One trait shared by all the scientists

and engineers is their adeptness and scientific knowledge. Their opinions are not seriously challenged by any other agential groups. In fact they are obligingly obeyed by secondary technically oriented agents, non-Germans, and women. This affords them a superiority over the non-scientist agents, especially since these rely on the scientific knowledge to help them out of perilous situations. Thus a type of technocratic elite emerges which is viewed with full optimism by the authors of the corpus.

3.3. Finally, I wish to make some observations about the other significant though subordinated agential groups, namely women, workers and other nationalities.

The scientists/engineers' own sense of superiority and the readers' view of them as superior is as a rule heightened by their relation to other, subordinate groups. As concerns the female agents, most of them have a marginal status and their image is as unimaginative as that found in much modern SF. Where they do participate in the narrative, they are usually Satellites (helpers) to the male protagonists or Values for them to rescue. The scientists' and engineers' attitude to women, as suggested in the sketches above, is usually chauvinistic. As a representative example, the following is taken from A Daring Trip to Mars. When a reporter asks Edmond why his wife is accompanying him on the interplanetary trip, he replies: "Somebody must do the housekeeping, even in the rocket. That is not work for men. And then, who knows whether other planets are not perhaps inhabited? She would surely not want me to succumb to the enticement of the beautiful dwellers in other worlds" (256). A similar attitude is expressed by the male grouping of protagonists in Interplanetary Bridges. Taussig says:

"Women would be very useful here... there would still be a thousand things that our settlement would need to give it a more civilized appearance."

"Yes, I fully agree with you," Lindner approved.

"So do I," joined in Meixner.... (113)

In addition, Lindner's marriage almost disqualifies him from undertaking an exploratory trip to Venus, but he is allowed to go provided he leaves his wife behind on Earth. In the remainder of the works, except The Cosmic Cloud, the role of women in the social reality of the 1920-30s is conveyed by the exclusion of female agents from positions of power or franchise.

Judith Bentink and Natalka are, in fact, the only two female scientist/engineer agents. Yet Natalka is a Satellite both to Korf and her father. After she steals Korf's plans, Natalka makes some modifications and passes them off as Korf's because she knows her father would never believe that she was capable of such calculations. She also becomes a Value which Suchinow and Korf rescue. Judith is also a Value: after she and her child are kidnapped, they become objects of rescue. Having been rescued, Judith and Natalka die and are survived by the male protagonists.

Other women usually fill the role of love interest to the male protagonist and all are of the "sweet-little-woman-waiting-at-home-for-her-man" type. This type includes Elizabeth Hawthorn (The Cosmic Cloud), Bela Wilson (In the Year 8000), Harriet Richards ("The Malignant Flower"), Buddy (Stone from the Moon), Irene (The Final War), and Inge (A Daring Trip to Mars)--the one taken along as housekeeper.

Many of the female agents, in order to access this male-dominated world, have to disguise themselves physically as men: Elsa Dorn (Utopia Island); the Knabinas of In the Year 8000 have become sexless workers,

physically resemble boys, and are contemptuous of women who become mothers; "In her leather sport suit...", Irene Allister (Between Earth and Moon), "looked like a boy..." (54); and Natalka assumes the identity of "Skoryna," a male pilot.

Khadija Effrem-Latour of The Cosmic Cloud is the exception to the female agents of this corpus. Although not a scientist, she is viewed as an independent woman who participates in political life on equal footing with her male counterparts, and occasionally even has the upper hand against her political adversary, Sir Archibald Plug. In this manner, her positive image would seem to represent an attempt on Bürgel's part to depict alternative societal relations as part of his more harmonious and egalitarian society, and her portrayal has to be considered in contrast to the other group of female emancipated agents, the "Knabinas" of In the Year 8000, who are viewed by the narrative as perverted and repulsive. However, within the Cosmic Cloud, Khadija would still be a Satellite to Baumgart in backing his plans to explore the Moon. She also provides part of the narrative's love interest.

Generally, workers are given less consideration than women by the scientist/engineer group.* They are usually mentioned in passing reference to a project. Workers of foreign extraction are usually employed for menial jobs. Anonymous German technicians occasionally appear to realize the plans of the senior German scientists or engineers. They are skilled labour and are brought in once the ground-clearing work has been completed by the foreign workers. As a group, German workers figure less predominantly than workers of other origin or race. German workers, e.g. in Interplanetary Bridges, are finally let in on the protagonists' secret project since they are working towards a common goal of ameliorating Germany's contemporary national and

international situation. As a pseudo-group of workers, von Hanstein's machines which replace human labour can also be included here. However, though described as possessing a certain mechanical beauty, their size is often viewed as threatening or various narrators discern their presence as menacing. They are, of course, Aporius' worker class in The Hidden Colony after the crew deserts him and he imagines them revolting against him.

There is considerable overlap between workers, the lower classes, and non-White racial groups in the corpus. The three conditions are often concomitant. Where non-Germans are considered as a race or cultural group (Chinese, Blacks, Indians, etc.), the view is usually negative. Such racial stereotypes are absent from the two "subversive" novels. Only in The Cosmic Cloud are the various races depicted as living in harmony and are described less chauvinistically though still somewhat paternalistically.

The scientist/engineer group view Blacks and Orientals unfavourably. Chinese, Negroes, and Indians appear as familiar negative (stereo)types. The Chinese, when not smoking opium (Between Earth and Moon 15), are manual labourers (coolies) who are not entrusted with details of their employers' plans.

Blacks are usually criminals, motivated by greed and a lust for recognition (Sam of Utopia Island, Sam Bell of In the Year 8000) or sub-intelligent beings (the "Nigro" race in In the Year 8000). In some narratives (Utopia Island, The Hidden Colony), Blacks are equated with serving machines or "dumb waiters." Janke, the chief engineer in The Hidden Colony, builds a black mechanical servant, a dwarf named Jack which says "please," for a surprise on Aporius' birthday. A similar

non-speaking device called "Sam" appears in Utopia Island and provides much amusement for the engineers: "... the face of the artificial servant was so pleased, the lips moved so naturally, and the great eyes rolled so comically in the dark face, that the gentlemen could not help laughing" (1381). However, one of the engineers, Zolling, remarks "Nevertheless, this artificial Moorish boy has not pleased me. It is something bizarre which does not go well with the technical clarity of all we have seen" (1381). Blacks, whether mechanized or not, are excluded from "scientific spaces" which coincide with "White" space. There are other "technological" spaces in some of these narratives which are also out of bounds to Orientals and Blacks e.g., White in Utopia Island is shocked to discover Sam: "A nègrol how could a negro get to Santa Scientia?" and comments, "Perhaps he is the cause of the disappearance of some of our food lately. In that case we unjustly suspected our coolies," but adds, "We must also be on guard against the Chinese" (1387). In the extreme expression, the Whites fear being overrun by Chinese or Negroes (Druso, In the Year 8000). Agents of either of these ethnic groups are usually blamed for any untoward event--e.g. Sam in Utopia Island or the Japanese reporter in Between Earth and Moon. When a non-German agent does have privileged information, as the negro Sam Bell in In the Year 8000 or the negro Sam in Utopia Island, he becomes a saboteur motivated by avarice. This is yet another way in which the scientists and engineers are established as a technocratic elite.

Aboriginals are treated slightly more favourably. The Mexican Indian occurs quite frequently (The Stone From the Moon, The Hidden Colony) and is usually described as lazy or as "Poor, stupid people" (The Hidden Colony 911). However, the Australian Aborigines of

Electropolis, though primitive cannibals, are skilled doctors. In fact, they are treated more sympathetically than the White Australian authorities (the "perfidious Albion" stereotype), who turn out to be aggressors against Schmidt and his community.

The English and French in some cases come in for criticism as Germany's war enemies. Fredric Jameson's Fables of Aggression may offer some perspective here. Jameson suggests that "the use of national types projects an essentially allegorical mode of representation, in which the individual characters figure those more abstract national characteristics which are read as their inner essence" and where "such allegory often serves as the instrument of cultural critique" (90). In Interplanetary Bridges, there is little doubt who Germany's antagonists are and revenge is perpetrated by making representative examples of both nationalities look foolish. A similar occurrence takes place in Electropolis where the Australian (British) authorities sell a parcel of land to a German, later realize they have made a monumental mistake, but the German is quite right to insist that they stick to their end of the bargain. The British are the victims of their own greed and stupidity.

In contrast, two nationalities are favoured by the German authors and often work as partners. Not surprisingly, Germans are viewed very favourably. The attitude ranges from Germans as the wronged people in Interplanetary Bridges, to an implicit attitude of the superiority of German scientific understanding exhibited by most of the principal agents in this corpus. As will be discussed in the chapter on spatial analysis, the German protagonists (and German workers) are endowed with traditional virtues: honesty, loyalty, forthrightness, etc. Not even The Cosmic Cloud, which usually provides one of the exceptions to the

rest of this corpus, is exempt here; likewise, the second exception, The Final War, despite its deliberate cosmopolitanism has a brilliant German scientist who condemns the generals for their short-sightedness.

The nationality which plays by far the most important role after the Germans is the Americans (US nationals). Seven of the 16 narratives feature either American or German-American agents as central to their development. These include the five von Hanstein narratives, "Garfield's Invention," and Interplanetary Bridges. Burke and Young of The Final War may be included though their nationality is unclear.

An important agential group is the non-scientists who provide financing for these projects: a large proportion of these agents have become or are US citizens. The example of Martin from Interplanetary Bridges has been mentioned (though he became an American citizen he is still working "for the good of the fatherland"); other Germans who have become Americans are Cook of Utopia Island and Schmidt of Electropolis. Allister (Between Earth and Moon) is the only native American to provide financial support. Using Jameson's hypothesis, Americans are clearly materialists, a view which is voiced by Taussig in judging to what use the Americans would put the discovery of varium: "England would build battleships with it; the French would construct combat airships, and the Americans would build bigger and better factories" (Interplanetary Bridges 109). Some agents do not provide financing but are a new generation of German-Americans. Bob White (né Weiss) and his cousin, Elsa Dorn, are examples of a generation that has emigrated to the States. A new generation of German-Americans will result from the marriage of Helmstätter and Irene Allister (Between Earth and Moon). If Grando Blanco (In the Year 8000), who lives and works in Berlin, is assumed to be German, then his union with New Yorker Bela Wilson will

also result in a new race from the German and American peoples.

The inclusion of Americans in the German corpus may be sincere "philo-Americanism" and would corroborate the stereotypical image of the rich and powerful USA and Americans that was prevalent in European literature of the 1920-30s. Less likely, authors who travelled widely and visited North America, such as von Hanstein, may have included such agents specifically with an eye to the US market. (His In the Year 8000, which does not appear to have been published in Germany, features New Yorkers Bela Wilson and her rich father.) It is also possible that Gernsback may have selected such works because of their favourable depiction of the US and Americans.

In this and the previous chapter, some preliminary observations have been made about the agents and the framework in which they are operating. It is now necessary to look at that framework in terms of how the spaces are used in the corpus.

CHAPTER FOUR

SPATIAL ANALYSIS

4.0. If, to use Gérard Klein's words, "literary works (all works of art) are attempts to resolve through the use of imagination and in the aesthetic mode, a problem which is not soluble in reality" ("Discontent" 9), then to what problems are the German narratives referring, and how do the authors propose to solve them? An analysis of the spatial element, in conjunction with the above agential descriptions, may provide clues to this question.

4.1. As seen from the analysis of the agents in this corpus, the "scientific" or "technological" loci of the narratives exclude specific groups, most particularly women, workers, non-White races, also children, and in most cases nationalities other than German (with a few, mainly Anglo-American, exceptions).

From the preceding agential descriptions, it is evident that the scientists and engineers are "a breed apart." As a rule, the superiority of these agents in relation to other agential groups is paralleled, spatially, by the engineers' and scientists' living apart from the rest of the community. In The Hidden Colony Aporius, his chief engineer, and the physician live in the "Headquarters building." The extreme example is Utopia Island, a community of scientists and engineers isolated from the rest of the world. In narratives where a "new" society emerges, it is led by a caste of scientists/engineers. As a result of their technical and scientific knowledge, they are able to create and organize their own universe. In Utopia Island, for example, the new social structure is determined by the scientific community: they

will decide by competitive application who can work on the island, and they insist on their separation from the rest of the non-scientific community that eventually arrives. Similarly, the scientific community in Druso will re-order Earth society.

The scientific/technological spaces are therefore closed spaces to certain groups. But physical closure is not the only manner in which they are closed: often, the technological project is carried out in secrecy (informational closure). Of the 16 narratives, only two, The Shot Into Infinity and The Cosmic Cloud, concern projects that are public knowledge. In In the Year 8000, Grando's plans are public knowledge, but Werner's scientific projects are kept secret because of their subversive nature in the fictive reality. The need for secrecy not only maintains the scientist/engineer status as a distinct ruling class having special knowledge that endows them with special powers, but it is also dovetailed with the scientific projects. For example, in many of the narratives German colonization of other planets is secretly projected or a German colony is set up on foreign soil; once the project has reached a certain stage of development and the outside world can see that its purpose is peaceful, the project can be revealed with the ultimate result of praise for the ingenuity of the German scientist/engineer.

This exclusivity of scientific knowledge did actually come about. When Hitler came to power, scientific research became classified, following the ideological program that "the technology ... and all higher scientific wisdom... is to remain the secret knowledge of a numerically small, pure-bred, heroic Aryan ruling elite."¹ Of many similar voices one of the best known articulations of the fascist

technocratic concept of technology, science, and philosophy as instruments for domination was Spengler's Der Mensch und die Technik published in 1932. (In fact, though omitted from the English translation, the closing remarks from Der Mensch und die Technik are cited by Freksa as an epigraph to Druso.) Compare the Atlanteans of Druso to the Aryans who were to become "the learned priests of the machine" (2), and cultivate the sciences as a ruling-class religion:

The most significant symptom of the impending decline and fall is to be found in what I would like to call the betrayal of technology.... Instead of keeping scientific knowledge secret, the knowledge that represents the most precious possession of the "White" peoples, it was boastfully revealed to all and sundry in universities, in conversations, lectures, and publications.... The irreplaceable advantages that the white peoples held have been wasted, dissipated, betrayed. (Spengler 27, 50, and 84-86)

Hitler himself was quite clear about this need of secrecy regarding science and technology in his "New Order":

Only when knowledge re-acquires the character of secret, initiate knowledge, and ceases to be accessible to all and sundry, will it again fulfill its normal function, namely that of being the means and the power to control both human and non-human nature.

In direct opposition to the space of the scientists and engineers is the non-scientific space of home and the woman, though these spaces are minimally represented; as suggested, neither women nor the home are important to these agents. Where the hero-scientist marries his love interest, the values of the natural space are reinforced. In The Stone from the Moon, once Burns marries, his future as a scientist is not indicated, but he is no longer seen working. In contrast, Korf, the unmarried engineer, is continuing his work at the narrative's close. In the case of agents such as Burns, this space shows the other side of the protagonist's personality--that he really can be like the reader.

4.2. Recalling the division into liberal, conservative, and regressive horizons from Chapter One, I shall now discuss the two liberal narratives. Bürgel's Cosmic Cloud presents a world where, socially, politically, and economically, society is in balance. Were it not for the anomaly, the cosmic cloud, the world depicted would be a utopia--a place "where sociopolitical institutions, norms, and individual relationships are organized according to a more perfect principle than in the author's community, this construction being based on estrangement arising out of an alternative historical hypothesis" (Suvin, Metamorphoses 49). Indeed, Africa--a radically different (and largely unfamiliar) location for a German audience--becomes an ideal state where the various races live together in relative harmony: "Orientals"--i.e. Arabs--attain the same status as Whites (as seen with Abdul Ben-Haffa), though Blacks are only seen in the role of servant; and women can attain equal status with men (shown by Khadija Effrem-Latour's standing in the African Senate). As such, the alternative formal framework provided by the utopic structure "is a formal inversion of significant and salient aspects of the author's world which has as its purpose or telos the recognition that the author (and reader) truly live in an axiologically inverted world" (Suvin, Metamorphoses 54). The author is alienated from his own empirical environment and the narrative is obviously an inverted image of the socio-political disruption of post-war Germany or indeed White imperial Europe.

Spohr's Final War is set in an unspecified location, with the objective of making the narrative universal. The narrative thus becomes a type of allegory or warning about the misuses of science. In its presentation of the powers-that-be misusing scientific knowledge and

causing destruction--in this case, the military powers--it is as critical of the existing social structures as The Cosmic Cloud. The author condemns the repressive--capitalist and bureaucratic--misuse of science. However, the possible annihilation of humanity is mitigated by creating a post-holocaust society. This narrative does not end as bleakly as The Cosmic Cloud: there is hope that society can undergo change, though only after full-scale breakdown. Cioffi indicates that holocaust tales were fairly common in 1930s' US SF (this narrative appeared in Wonder Stories, March 1932), with the blame for the destruction placed on failure to heed scientists' warnings. In this type of story, "there is little doubt that the destroyed society brought about its own destruction" (Cioffi 84). Both scientists, Baumgart in The Cosmic Cloud and Doehler in The Final War, work in the interests of the race as a whole (whereas protagonists of other narratives act solely in the interests of the German nation and themselves--thus indirectly also glorifying Germany). In both cases science cannot control space, which is devastated either by war or by the more symbolic "cosmic cloud" threat.

Narratives formulated within the conservative structure are Between Earth and Moon, The Shot Into Infinity, The Stone From the Moon, and A Daring Trip to Mars. In all four, the narrative's initial reality is reasserted with the German protagonist having achieved hero status.

Two of the conservative narratives are set outside the space of contemporary Germany. These are Utopia Island and The Hidden Colony. Though Cioffi does not elucidate whether he found similar narrative structures in his US "status quo" corpus, these problematic cases in the German corpus occasion interesting speculation and should be considered

together with Interplanetary Bridges, Electropolis, and In the Year 8000, which begin in the status quo formula but do not reassert the initial reality.

Interplanetary Bridges and Electropolis open with a conventional picture of social reality but the initial reality is not literally reasserted at the close of the narrative. On the other hand, these narratives do not subvert conventional social hierarchies and cannot, therefore, be examples of what Cioffi calls the "subversive" mode. In the Year 8000 could be included in this category. Although it does not open with a contemporary picture of social reality per se but a complacent future, it follows the same trajectory as Interplanetary Bridges and Electropolis in asserting a seemingly different, exotic SF reality at the end of the narrative that, however, does not subvert the conventional hierarchy of the implied reader's social reality. This structure which is not identified by Cioffi's somewhat literal-minded equation of fictional and non-fictional realities⁴ is revealing for these German narratives: in each case, a literally new--i.e. spatially displaced--but sociopolitically old (conservative or indeed reactionary) reality is emerging for the narrative agents, either through colonization of other planets or of other nations. As Cioffi points out, "these early stories often depict the world as the authors and the readers might have wanted it to be, but in a way which both groups realized was very far from the truth of the matter" (39).

Druso seems to be a single example of an attempt to depict another reality (first Earth under the aliens and then Druso itself). Conventional reality is seemingly bypassed, and the author's empirical reality has to be inferred. However, this is only a seeming exception.

National and class hatreds are here simply transposed into hatred of aliens (BEMs).

Nagl in his Science Fiction in Deutschland views the ant-like alien Drusonians as representatives of the Jews and thus interprets the novel as anti-semitic. However, the Drusonians are throughout the novel constantly associated with the colour red--their world is bathed in a red glow--and they have problems distinguishing the colour blue, a colour at the opposite end of the spectrum, associated by Freksa with more advanced peoples. The northern Atlanteans are associated with this colour, partly because they can disguise themselves and become practically invisible to the blue-blind Drusonians, partly because blue seems associated with Atlantis.⁵ The Drusonians' ant society could be a parabolic representative of the Soviet collective, and the Atlanteans--obviously representative of the German people and the Nazi ideology into which Atlantis was incorporated--staunch defenders of their territory from the threat of Communism. As such, the story would be a fascist-oriented contribution to the very volatile political climate of 1931, emphasizing as superior the values correlative with German fascism. Nonetheless, the symbolism is so vague that both anti-Semitism and anti-collectivism can be entertained as partly possible interpretations of this typically sensationalist right-wing mish-mash.⁶ Thus, the purpose of the "other world" formula does not necessarily have to "let values and ideas struggle within totally alien situations" (Cioffi 118): in parabolic or similar projection, such narratives always confront contemporary values and ideas.

4.3. Locations are often significant. Although not much of this corpus' action is set in the US, the country is mentioned frequently.

Most authors, except for the "subversives" who do not mention the US, have a consistent view of the States: it is a land of materialists and a land of plenty. Many of the conservative narratives emphasize, as discussed before, German ingenuity backed by money from the US: the USA are the place where people go for money to finance their scientific or engineering projects by selling objects. Martin of Interplanetary Bridges sells his real estate in the US to build the Vernean spaceship-submarine that will either avenge the Germans on the British and French or find new worlds for Germans to colonize. Schmidt of Electropolis sells his radium in the States to buy land in Australia and create Electropolis, or "New Germany" as it is referred to. In fact, one of the first considerations is always to legally acquire the foreign land. In The Hidden Colony, Aporius writes:

The captain ... points out that we ourselves are usurpers. We seem in a fair way to annex a section of Yucatan. We must not get outside the strip or we are likely to be expelled en masse by the Mexican government. Of course, it is altogether unlikely that any Mexican officials will show up around here ... but we must be careful not to injure the good name of Germany.... Captain Westphal and Dr. Hellmuth will head the expedition to Merida and will negotiate for this strip of land It will be easy for him to buy the waste stretches of land along the eastern coast of Yucatan, and once it is done we will be in [sic] our own ground. (1107)

In addition, Aporius' machines in The Hidden Colony are part of German-American venture: "Millions of dollars' worth would be lost ... for the Americans who have stock in my enterprises and invested in them" (1102-03). In Between Earth and Moon, the American Joe Allister provides the financing for Helmstätter's and Apel's rocket. In In the Year 8000 there is even a "German-American Construction Company" (367). This foregrounds the link between Germany and the US as joint venture partners and the German authors' rapprochement between their nation and

the USA. The image of America as the ideal is stressed by the fact that so few of the German narratives are located on German soil. In Electropolis, the narrative opens in contemporary Berlin but it is denoted as a space where there are no prospects: the narrator is unemployed and has many rejection letters from large companies. The Shot Into Infinity is set in "impoverished Germany" where the protagonist cannot raise the funds to realize his ingenious ideas for a rocket, thus closely paralleling Oberth's and others' dilemma in Germany of the 1920s which, as Päch suggests (201), instigated Gail to write this novel.

The USA was an ally of the British and French in the First World War--a fact which should detract from the portrayal of the States in this corpus. Nonetheless, this country is viewed favourably by the German authors. This is probably due to several factors. First, to the exaggerated ideas Europeans have had of US affluence as testified by 19th-century emigration: as F. S. C. Northrop in The Meeting of East and West observed, a much idealized America "existed ... as a necessity of the European imagination before it was discovered in fact" (292). Second, to the economic influence the USA wielded in post-war Germany as well as of its more moderate political role: e.g., the US never militarily occupied any part of Germany, Congress repudiated Wilson's Versailles treaties, the US later returned German private property seized in the States under the terms of Versailles; under the Dawes plan (1924) the US lent 800 million Reichsmarks (\$200 million) to Germany; the Young plan (1930) allowed for a substantial alleviation of the reparations burden and did away with the control of German affairs by foreign agents.

Many of the narratives present exotic locations for all or part of the story. The locations used are Africa (The Cosmic Cloud), Mexico (In the Year 8000, The Stone from the Moon, The Hidden Colony), and Australia (Electropolis). ("The Malignant Flower" uses India for a setting, but, as specified earlier, this short story diverges sharply from the rest of the corpus.) Like the USA, these exotic lands represent a land that few Germans would have known about in detail. With the exception of the liberal Cosmic Cloud, the authors see them as lands of potential plenty, in which technology can be exploited for abundance. Outer space and other planets are used in much the same way: they represent a potential for exploration and material affluence, Germany's new Lebensraum.

Frequently, the scientists/engineers move into a "natural" space and turn it into a technological space by their practices. This is most clearly demonstrated in the von Hanstein stories, which emphasize the use of the machine coming into wild or semi-rural landscapes and proceeding to civilize the location. In his narratives, the natural spaces usually provide isolation and secrecy for the scientists and engineers to carry out their work. Anton's Interplanetary Bridges follows suit.

Not surprisingly, little is seen of natural space in the corpus. As indicated, natural spaces simply furnish the raw materials for production that will eventually aid the German protagonists in some way. Even the Moon in Between Earth and Moon provides the basic materials for Helmsttter to return home and be praised for his (German) ingenuity.

Mexico, in two von Hanstein narratives (In the Year 8000 and The Hidden Colony), is a space that is used for agricultural purposes. In

The Hidden Colony, Aporius sets up his mechanized village to grow food as his contribution to the German war effort. It seems questionable that someone would set up a farm to grow food at the beginning of the war since dire food shortages were not an issue in Germany at that time. Food shortages and rationing only became a factor later, though they may have been vivid memories for an author writing in 1924. The issue of their abundant harvests dogs Aporius throughout the narrative:

Think of all that cocoa wasted, and back home in Germany people are hungry. (1113)

There is hunger now in Germany. Here we have plenty of everything. (1221)

I dwell on how great our project had grown, how we could serve the fatherland, if we only worked on here and gathered provisions for the hungry people back home. (1223)

The scarcity and expensiveness of food in Germany in the 1920s is well documented: in a speech before the Reichstag on February 20, 1923,⁷ Franz Bumm, the president of the Reich Department of Health, noted that "insufficient nutrition" was the cause for the reappearance of many diseases as

... a consequence of a bad and overly watery diet. There are increases in stomach disorder and food poisoning, which are the result of eating spoiled foods. There are complaints of the appearance of scurvy, which is a consequence of an unbalanced and improper diet.... More and more often one finds 'old age' and 'weakness' listed in the official records on the causes of death; these are equivalent to death through hunger.

In addition, illnesses linger because "the body only barely finds the nourishment necessary for full recovery" (113).

Similarly, in In the Year 8000, Bela and Grando retreat to Santa Machina farm in the Yucatan to grow food for humanity. In both narratives, Mexico is a location where a German colony is set up-- successfully in In the Year 8000, less so in The Hidden Colony. This kind of situation is led to its logical political end in Electropolis, where the agents have set up the preconditions to becoming a self-

sufficient nation on Australian soil.

The exotic locations are representations of "other" Germanies. In Electropolis, Australia represents an escape from unemployment; in The Hidden Colony, Mexico is an example of what the Germans could achieve if they had not been in a war: "The whole world is burning up while we live here on our forgotten little island of peace" (1120). In this manner, von Hanstein and other authors locate an idealized reality or "new Germany" in remote locations and oppose it to "normal" fictive reality. The remote "other" spaces become a blueprint for a German audience's wish-fulfillment of national dreams.

All such spaces are closely connected with the theme of Lebensraum. Obviously, The Hidden Colony is just that, but at the end of the narrative the colony's survival is in the balance: more engineers have been sent for to run the farm but the colony is far from the same phase of development as the one in In the Year 8000 or Electropolis, both of which are welcoming new settlers and families. The agents who leave their homes and go to these places are pioneers, similar to the frontiersmen of the American West, who escape their old world oriented toward the past and begin anew with a tabula rasa.

For a German readership of the time, these narratives, especially Electropolis and Interplanetary Bridges, represented a kind of Philistine utopia, a land of abundance where their everyday grim reality was absent. The protagonist(s) in these narratives have been set free from the global political and economical structures and ideologies of the reader's empirical reality. However, the blueprints for these wish-dream lands are not worked out beyond the initial phase of clearing a space and making it habitable for settlers. This may have two reasons.

First, what was important in these stories was simply the promise of Lebensraum located in an exotic environment and displaced from a forbidding empirical reality where there was no possibility of its fruition. Second, the future of that Lebensraum was then meant to be imagined by the reader as a multiplication ad infinitum of the German petty-bourgeois way of life plus miraculous drudgery-saving machines (and it was most probably so imagined by the authors). These narratives therefore use a twofold strategy: first, they do not literally reassert the authors' empirical environment but suggest the creation of a new social space. However, this space, while geographically new, reproduces familiar (in fact, old) social hierarchies--with a heightened role for science as technology. The strong streak of this pseudo-utopianism in exotic locations fulfills a German dream where the shell of spatial utopianism is used and refashioned in a context of "New Germany."

In the extreme right-wing Interplanetary Bridges, as far as the author is concerned, Germany's position in post-World War I Europe is just as anomalous as the balancing invention of a spaceship-submarine. The invention--a dynamic example of German potential--is the only means for Germany to reestablish the former position and prestige that are rightly hers. The four principal agents are endowed with a set of values that allows them to kill Germany's enemies without guilt--values, it seems implied, that Germans must accept if Germany is to regain her former position and power. Nonetheless, the author cannot reassert everyday reality at the end of this narrative. Thus, the reality the author desires, the days of the pre-1914 empire, is transferred to another space (Venus).

4.4. A similar use is served by the myth of Atlantis where it appears

in the corpus (direct reference in Druso, suggestions in Between Earth and Moon and The Stone From the Moon, though the latter is more a pseudo-scientific explanation of the Atlantis myth prefiguring von Däniken). In Druso, where the Atlantis myth is developed and used most extensively, the scientists of Boothia Felix refer to themselves as "Atlanteans." Atlantis, the imaginary abode of pure and happy beings, is created at the end of the narrative with this community reordering the Earth as it sees fit. The promise of a new golden age is suggested, which has been brought about by the Northerners' moral regeneration and the scientific knowledge of the few "wise ones" from the Sleepers.

In his Science Fiction in Deutschland, Nagl distinguishes four concepts used in German SF of the 1920s and 1930s: "Glacial Cosmogony," the Atlantis/Thule myth, Theozology, and the Hollow World theory. Even in this restricted corpus of translations, the first two are easily discerned.

The Atlantis myth and Glacial Cosmogony became the dominant themes of German SF in the 1920s and 1930s. They had a close relationship since the cyclical nature of the Glacial Cosmogony theory ensured that Atlantis would rise again. Though this corpus does not include any narratives where the re-emergence of Atlantis causes the submergence of the countries of the Entente (which was one common use of theme), The Stone From the Moon does incorporate the myth in its other common formulation of locating Atlantis in outer space, thus validating the protagonist's right to re-establish the legitimate Aryan (i.e. German) empire. In this narrative, remains of Atlantis in the form of Queen Huitaca's sailing ship, which had been destroyed by the Moon's approach to the Earth, are discovered in space. Gail does not go quite as far as

admonishing Korf to reconstruct the Aryan empire, though the validation is clearly present: "Wherever there is civilization to-day, its first root was planted by the colonizers from Atlantis" (358). He leaves Korf searching for Atlantis through his giant telescope. Eventually Korf finds what he is looking for:

"Thula! [sic] " whispers Korf in a tone of awe. "It is the truth! I have seen it, and I shall see it again, better than to-day--that magic land of Atlantis, dreaming away the ages at the bottom of the sea!

His brain sets to work to devise plans for the improvement of the telescope. (419)

Gail uses technology throughout this narrative to validate the Atlantis myth.

The belief in Atlantis and Glacial Cosmogony was far-reaching in scientific circles. Nagl cites that some 600 members of the "Verein für Raumschiffahrt" (Society for Space Flight), of which Valier was a founding member, "wished to escape from the German misery by means of spaceships" (Nagl, "SF, Occult Sciences" 188). This could almost be an epigraph for my whole spatial analysis.

4.5. As we shall see in the next chapter, Gernsback had an idealized view of technology. Yet technology--and space dominated by machines--is often represented ambiguously in these narratives. Von Hanstein, whose narratives make up almost a third of the corpus, is the one author who most frequently makes use of fabulous machines in his works. If the narratives are read superficially, his machines appear to be viewed positively: they are labour-saving devices for humans, and fulfill what, in Chapter One, I called the "gosh-wow" effect of technology in SF. Four of his stories show an automated world where man is freed from the burden of toil through machines and is able to refashion the world

around him. Although man's participation in civilizing a natural space with machines, thus taming the wilderness, is approved, there is also the exhortation "Beware the day when the machines revolt against man!" (The Hidden Colony 1228). Man left alone with machines is not a good constellation: Bela in In the Year 8000 is so frightened by the machines, when left alone with them, that she flees from her uncle's farm. The objection to this may be that she later returns with Grando and is quite at ease with the machines, intimating that woman needs a man to look after her in such circumstances. Yet on the other hand Dr. Aporius in The Hidden Colony, also left alone with his machines, goes mad and eventually dies. Further, the "rational" society in In the Year 8000, based on the extensive use of machines and made up of men who are compared to machines, seems bound to eventually crumble to a new type of society of conservative feeling advocated by Werner and represented by Bela and the regenerated Grando.

The machine is not seen as frankly repressive, in the manner of Dickens or Zola, but its implied impact upon society is questioned in these narratives. One gets a very ambiguous impression of the fully-automated utopia from von Hanstein's oeuvre: humankind is destined to derive little pleasure from a universe which operates like clockwork. Witness Schmidt's ennui after a few days in The Hidden Colony: "Today everything went forward smoothly as before, controlled by the master clockwork. No machines broke down" (1126).

A society that has become dependent upon machines is also shown in Druso. The narrative obviously draws from Spengler's philosophy as expressed in The Decline of the West (written 1918-22). Spengler bases his view of history on three successive cultures: the Classical, the Arabian, and the Western. Each of these cultures has undergone or is

undergoing the same stages of development: a pre-cultural period, an early period of culture, a late period of culture, and a period of "civilization"--a negative term for Spengler which signals a culture's decline. In Druso, society has "devolved" from a highly technologically-oriented space to a primitive one. It has succumbed to the Drusonians as a result of the amount of leisure-time that mankind had to pursue intellectual interests. Based on Spenglerian philosophy, the more favoured society is the primitive tribal one in which the land and man has reverted to a wild state. Earlier in the narrative, Alf Bentink had yearned for the uncultivated spaces of South America as an escape from his rational and civilized world.

Thus, the dualism pointed out by Leo Marx in his The Machine in the Garden between the land, as innocence and harmony, and the civilized complexities and aggressions that are epitomized in the machine (and by people using machines)--between the machine and its effects on nature and society--exists here too. On the one hand, the image of a green landscape--a terrain either wild or rural--has long been used in literature as the symbolic repository of meaning and value. For the German S-F writers, this space is the symbol of new life and the reassertion of traditional values. On the other hand, the machine has been traditionally associated with stripping the old ideals of their meaning. In fact, for the bulk of the narratives the scientist/engineer group are further distinguished from other groups by specific moral qualities. They are harbingers not only of Germany's social rejuvenation but of moral regeneration. The spaces in which these agents move take on a highly idealized nature. For example, in the case of In the Year 8000, Bela's and Grando's retreat is almost a return to the

pastoral (cf. Suvin, Metamorphoses 58, and Marx Machine), where a money economy is absent and there is an attempt to return to virtuous qualities.. A cleavage develops between the agents' semi-civilized world in Mexico and the highly organized world of the year 8000, resulting in two distinct spaces harbouring different morals and societal relationships. This may also be why the narrative is set so far in the future: this new world represented by Bela and Grando is a private ideal whose collective realization is left unclear, though it is on the other hand implied that this realization is necessary; the story has many elements of an "incoherent pessimum" S-F narrative (Suvin, Victorian Science Fiction 304 ff.).

Yet, for these German S-F authors, mostly specific neo-conservatives, the machine gives meaning to or indeed creates the "green" spaces: 'it is the means of civilizing spaces as Lebensraum. This gives a Teutonic twist to Jules Verne's "space machines" (cf. Suvin, Metamorphoses chap. 7.1), for the value attached to the machine is thus not simply tied to European bourgeois civilization but to particular national politics: technology is the instrument to fulfill the aims of the Fatherland.

In the majority of this corpus, the successful working of the German machine inventions as a means to power for Germany either in the form of revenge or for exploratory or colonization purposes (Lebensraum), leads to an optimistic view of Germany's future. The hopes for freedom and happiness are felt to rest upon technology. Strictly parallel to the way the fabulous machines described by von Hanstein usually bring order to a wilderness that makes it habitable for Germans, the machines are also a means to order society. Paradoxically, the political progressives (Bürgerl and Spohr) are rather pessimistic.

More realistic in their approach, the authors indicate that human problems will have to be resolved by humans not machines. Thus the emphasis in these works is not technological but social.

The developed, acquired space, such as in The Hidden Colony, is described as "heaven" (1080) or an "enchanted land" (1116). The attempt is clearly (as Leo Marx pointed out for US fiction) to associate the supposed virtues of a past way of life with different social structures and values in a 20th-century industrial society. Very often in these narratives, there is an emphasis on the importance of the natural order and "natural" values vis-à-vis the quest for knowledge which leads to catastrophe (In the Year 8000, Druso, etc.). In both these novels the "rational" society is viewed ambiguously (incoherently?) since the machines affording humans more leisure time are not seen as a positive societal development. In Druso, the author places emphasis on a pseudo-Darwinian survival of the fittest in which man is not only pitted against others of his species but also against the natural order. Combined with Spengler's negative "civilization" and positive cultural primitivism, the impulse is not towards a (progressive) evolution of the species but to a (regressive) prolongation of man's militaristic nature. Hurst complains that humankind of the year 2300 has become too "soft" because of their highly developed civilization which is based on scientific knowledge and dependent upon machines. The order crumbles when they attempt to increase their knowledge by establishing communication with the Drusonians who drain from Earth the electrical power on which the machines depend. In In the Year 8000, an advanced technological civilization and its depraved moral values is juxtaposed to 20th-century society with idealized moral and affective values. The

possibility for establishing this idealized society comes when the men of the rational society of 8000 experience a subterranean drilling disaster. The implication of the two spaces is that a fully rationalized, technologically progressive society is morally depraved and eventually doomed to disaster, whereas the society with a minimal reliance on machines is preferable. In both works, the society independent of machine technology reasserts religion which is tied in with the concern of moral regeneration: Blanco establishes a church and Hurst uses religious practices to re-educate the primitive Earth people as he sees fit.

This tension between the "natural" order and traditional virtues on one hand and the inability to do without technology on the other correlates with a structure in German ideology identified by Nagl. Nagl points out that fascist ideology eventually contained many contradictory ideas and philosophies, not the least of which was a desire to return to a feudal or primitive way of life. But this desire had to be incorporated into the actuality of a technology-based society composed of antagonistic structures and values. This was a time in Germany when industry was being rebuilt and restructured with new technology, and when the most modern army was being built up, yet the pagan midsummer and midwinter holidays were also celebrated; "when the contradictions and irrationalities of a capitalist socioeconomic system and its power structures were transmuted into an apparently natural ideology and apology" (Nagl, Science Fiction in Deutschland 172). In addition, by bringing these machines into "uncivilized" spaces, by exploiting nature, the agents give that space a value it did not previously possess. Whereas before the space was unproductive and valueless, it is now the opposite. It thus becomes correlated with the author's empirical

environment: the dominant ideology and structures are those of a Germany based on capitalist values where production (within a social hierarchy) equals worth.

The notion of the advanced machine in these narratives is also significant spatially. The spaceship or machine becomes a mobile replica of a technically advanced, complex society. It gives a small-scale impression of something Germany wanted to be. Both the machine and the spaceship are liberating elements in that they give freedom from old space and power over "new" exotic space to the agents.

Some of the German narratives no doubt would have appealed to US readers since in some ways they represented an escape from the Depression of the late 20s and 30s. However, to a somewhat earlier German audience, they spoke of other concerns, such as the need for Lebensraum in the "depression" that Germany experienced much earlier than the States, immediately after World War I. Yet the majority of the German corpus presents not radically changed future societies, which SF can do, but fulfills the promises not delivered by the existing society through its political institutions.

NOTES

¹ "Die Blonden als Träger und Opfer der technischen Kultur," Ostara, 75: 18. Quoted according to Friedrich Heer Der Glaube des Adolf Hitler, 715.

² Oswald Spengler, Der Mensch und die Technik, 70, my translation (*italics* Spengler's).

³ Quote by Hitler from Hermann Rauschning's Gespräche mit Hitler, 40; my translation.

⁴ As noted in Chapter One, it is clear that Cioffi's definition needs to be supplemented to avoid the one-to-one comparison his methodology tends to draw between the author's empirical and fictive reality. In this respect, Jauss' Aesthetic Experience and Literary Hermeneutics (*passim*), Iser's The Implied Reader (*passim*), or Suvin's Victorian Science Fiction 298-311, all provide useful discussions for reinserting text into context.

⁵ Nagl (in Science Fiction in Deutschland 182) mentions the flag bearing the bluish white swastika of Atlantis which figures in Edmund Kiss' Die letzte Königin von Atlantis (The Last Queen of Atlantis, Leipzig, 1931). The four blue lilies depicted on the banner of Josef Lanz' racist sect, Orden des Neuen Tempels (Order of the New Temple), represent racial purity.

⁶ There are even suggestions of Wells' War of the Worlds: the Drusonians are physiologically similar to Wells' Martians who have "eyes with a visual range not very different from ours except that ... blue and violet were as black to them..." (London, Octopus, 1982: 93-94). In addition, the red glow of Druso is reminiscent of the red grass sown by the Martian invaders.

⁷ Cited in Fritz K. Ringer, ed., The German Inflation of 1923,
112-18.

CHAPTER FIVETHE NON-FICTIONAL DISCOURSE OF GERNSBACK'S MAGAZINES

5.0. The purpose of examining the non-fictional discourse is to clarify how and why the German narratives came to be printed in Gernsback's magazines. This can be inferred from Gernsback's target audience (his implied reader), which can in turn largely be reconstructed from the advertisements aimed at it, and then compared with the letters of the actual readers.

I propose to begin building a profile of the implied reader or social addressee from Gernsback's editorials. At the same time, Gernsback's comments will also reveal how he viewed SF, science, progress, and society. Another profile can be built up from the ads and letters and compared to Gernsback's ideal reader, thus forming a compound image. Gernsback's views, in particular about technology, and the resulting notion of ideal reader can then be considered with regard to the German narratives to suggest possible reasons for their inclusion.

To sample the non-fictional discourse, I have limited myself to the same magazine issues from which the German narratives are taken (see Bibliography 1.22). However, I have also referred to the first issue of Amazing Stories, since in its editorial Gernsback states what type of story he intended to publish and why. In addition, I have also cited letters from one or two issues subsequent to those in which the narratives were published, since the readers' letters referring to them naturally appeared at least one or two months later.

As stated in Chapter One, I shall make use of several concepts of

social discourse as discussed by Angenot (see Bibliography) to comment upon the non-fictional discourses of the magazines.

The nature of this discourse requires working from the concept of the implied, and I shall begin my analysis from this general category which embraces the notions of presupposition, enthymeme, topos, and ideological maxim. The enthymemes, which exist in praesentia, mediate between the presuppositions and the commonplaces or topoi (which Angenot more specifically refers to as ideologemes--the underlying regulatory principles which confer authority and coherence on discourse). By taking the enthymematic discourse, particularly of Gernsback's editorials and the advertisements, and shifting back and forth between presuppositions and the topoi (ideologemes), I will be able to offer possible interpretations of these discourses as a means to understand both the idea of the implied and empirical reader (suggested by Gernsback and his advertisers), as well as Gernsback's views of SF, science, and society.

5.1. When Gernsback first started Amazing Stories, his editorial column provided a channel between the magazine's editors and publishers and the readers. His editorial column was the means by which the editorial staff could inform the readers of changes to the magazines and it acted as a sounding board for such changes. Later, when not announcing new contests or events (e.g. "Science Fiction Week"), his editorials tended to focus upon a particular aspect of science, technology, or the para-sciences (e.g. the human aura, telepathy, etc.).

Using the above methodology, I first wish to discern from the editorials how close is the coincidence between his views regarding

science/technology vis-à-vis society and the "science" in the narratives he published. Gernsback believes that SF has some very specific purposes and these are of paramount importance to his ideology.

The type and style of stories appearing in many magazines at this period were dictated by editorial policy. In the first issue of Amazing Stories, Gernsback's editorial states what type of S-F stories he will publish: "By 'scientifiction' I mean the Jules Verne, H. G. Wells, and Edgar Allan Poe type of story--a charming romance intermingled with scientific fact and prophetic vision".¹ Even this first editorial stresses the main aspects that Gernsback would always attribute to SF. He identifies SF as a means of instruction through scientific fact and as sensational, prophetic vision. A third omnipresent aspect of Gernsback's editorial choices, a captivating adventure-story as narrative framework, is usually hidden behind his references to the "entertaining" quality of SF stories--e.g. in the case of Gail's Shot Into Infinity or Valier's Daring Trip to Mars. The emphasis of these magazines--Amazing Stories, Air Wonder Stories, Science Wonder Stories (the latter two merged as Wonder Stories), Amazing Stories Annual, and the corresponding quarterlies, Science Wonder Quarterly and Wonder Stories Quarterly--is on the stories' instructive value: they are a "means of entertainment and education which is bound to sweep the world" (SWQ 2:293). As Gernsback states in the first issue of Amazing:

Not only do these amazing tales make tremendously interesting reading --they are also always instructive. They supply knowledge that we might not otherwise obtain--and they supply it in a very palatable form. For the best of these modern writers of scientifiction have the knack of imparting knowledge, and even inspiration, without once making us aware that we are being taught. (AS 3:3)

Exception could be taken to this statement, since many of the stories, the early ones especially, read more like classroom lectures than

exciting reading. Gernsback seems aware that the stories may become too scientific and suffer stylistically (AS 1:291). But it seems that exciting instructive tales were hard to come by, since a great proportion of the early issues of Amazing consisted of reprints, largely of Wells and Verne, as well as of authors such as Merritt, who was hardly scientifically instructive but very popular. The first two issues were entirely reprints, and as concerns novels (published as serials), in the first 18 issues only one was an original (Ashley 1:23). However, the readers, judging from their letters, tended to validate Gernsback's claim of the instructive power of SF. There are many testimonial-type letters from the newly converted to support Gernsback's view. Even noted S-F writer and science popularizer Isaac Asimov supports Gernsback's claim stating "Science fiction gave me a push toward science that was irresistible. It was science fiction that made me want to be a scientist strongly enough to eventually make me one" (Asimov 55).

Gernsback also assigned a prophetic role to SF. The slogan above his editorials in the Wonder magazines reads "Prophetic Fiction is the Mother of Scientific Fact." This resulted in SF being discussed, by both Gernsback and his readers, in religious metaphors:

... our aim is solely to spread the gospel of Science Fiction that we all believe in so fervently.... (SWQ 2:293)

... there is the steady winning of new converts(WSQ 1:437)

... LEAGUE members ... are to broadcast the gospel of Science Fiction throughout the world. (WS 5:1062)

The SF movement is even referred to as a "cult" (WS 5:1062).

From the very first issue of Amazing Stories, Gernsback emphasized the sensationalistic aspect that SF can provide as prophecy: he viewed the fulfillment of the prophecies (i.e., the actual coming to be of some inventions) as validating the role of SF. He always took pains to point out in Amazing Stories that what he terms the "science" of the story was within the realm of possibility. After founding Wonder Stories, he even appointed several respected scientists to read and approve the scientific aspect of the stories before publication. The science content of the stories, therefore, ostensibly plays a major role. Gernsback boasted in his editorial:

... readers seem to have the idea that we try to impress our friends with the fact that whatever is printed in AMAZING STORIES is not necessarily pure fiction, but could or can be fact. That impression is quite correct. We DO wish to do so, and have tried to do so ever since we started AMAZING STORIES. As a matter of fact, our editorial policy is built upon this structure and will be so continued indefinitely.... We reject stories often on the ground that, in our opinion, the plot or action is not in keeping with science as we know it today. (AS 1:291)

Thus Gernsback laid the foundation of what SF was to be in its early period.

The editorials give some idea of Gernsback's enthusiasm for technology. Perhaps the best single example is the editorial he wrote for the July 1931 issue of Wonder Stories, entitled "Wonders of the Machine Age," in which he defends technology (automation) against those who criticize it as being the cause of unemployment and thus contributory to the Depression. He refutes the arguments against technology made "by many economists and indeed, many so-called industrialists" (151). Such "authorities" have often been wrong in the past, he argues, and supports himself with several examples.

On the contrary, he continues, "with very few exceptions, practically all useful inventions and useful machines, so far invented,

have not only helped the human race socially, but HAVE BEEN THE DIRECT CAUSE OF KEEPING MILLIONS OF PEOPLE EMPLOYED" (284) by virtue of the ancillary industries and services they create. Although men may be unemployed temporarily, they will find other jobs, sooner or later, "probably created, directly or indirectly, by the very machines that threw them out of work originally" (285). He points out that unemployment existed before the Machine Age and, if anything, the Depression would be more severe and run longer if man did not have his machines. The root of all the present troubles, he concludes, lies not with the machine, but in human psychology: "When people start to hoard their money, when they are afraid of their own shadow, and when they tremble at the future for no reason at all, the machine certainly cannot be blamed." His purpose in justifying the existence of the machine supports the need for SF:

Science fiction is based upon the progress of science: THAT IS ITS VERY FOUNDATION. Without it, there could be no science fiction. ... If you admit that Machines and Science are all wrong, and that they are destroying humanity, then there should be no such thing as science fiction; and it would be useless to preach the gospel of science. (285)

As a result, he claims, he will not publish any of the stories which focus upon technology as detrimental to society (which, it seems, he had been receiving in quantity), since "propaganda of this sort ... tends to inflame an unreasoning public against scientific progress, against useful machines, and against inventions in general." His final word on the subject is: "... I have no patience with those who tend to preach the evils of the Machine Age, which, in the long run, are non-existent." (286) As Carter points out, "The founder of Amazing Stories never recanted his faith" (Creation 5).

This matter was one of great importance to Gernsback, if shown only

by the length of this editorial. As a rule, his editorials covered two-thirds of a page. This particular editorial is nearly three times as long. Still, this is just a single representative example of Gernsback's optimistic view of technology and scientific progress. The readers' letter column evidences this quite clearly: where the ethics of science come into question, the editorial reply brushes the matter aside. In the editorial just quoted, Gernsback is also validating his own magazine's existence: if there is ~~no~~ progress in science, SF would cease to exist--as well as the need for his magazines.

Gernsback explicitly set readers of his S-F magazines apart from readers of other magazines, as well as setting up those who "preach the gospel of science" as the true leaders of the future:

Scientifiction is a branch of literature which requires more intelligence and even more aesthetic sense than is possessed by the sex-type reading public. It is designed to reach those qualities of the mind which are aroused only by things vast, things cataclysmic, and things unfathomably strange. (AS 1:291)

On the other hand:

The average man is not scientifically inclined and misses much in life because of his poor scientific education. When he is converted to Science Fiction, his scientific education quickly becomes such that, sooner or later, he understands what is going on all around him, which his fellow man is usually ignorant of. (WS 5:1062)

In the preceding chapters, the scientists and technologists were seen as a breed apart in their disdain for other groups. A similar phenomenon can be found in Gernsback's non-fictional discourse:

It is a sad commentary on our general level of taste or intelligence that despite the growing popularity of science fiction, the appetite of the American magazine reading public still inclines to wild-west, broncho-busting [sic] stories and sex thrillers. (WSQ 1:437)

In the same editorial, a parallel can be seen between his readers and the heroes of the German narratives: both are future leaders--"The

thousands of readers that now constitute the science fiction reading public are then the pioneers into the future" (WSQ 1:437). There is even a comparable, somewhat chauvinistic attitude to having to suffer women and non-scientists among the ranks:

Science fiction is making a greater and greater appeal every month to women, who were previously uninterested.... there is, as far as we can see, no reason why women should not find the same enjoyment, stimulation and also education in our stories as men do. However, it is probably true that science fiction must extend its appeal to those who are not scientifically trained as well as to those who are. The average man know sic little of the wonders of science; and he thinks it is something for "scientists" only. When the day comes that all men and women realize that a knowledge of science is necessary to their lives, a happier day will dawn for mankind. (WSQ 1:437)

As for Gernsback's literary sensitivity as editor, this is summed up by Carter (Creation 8): "Hugo Gernsback had, so far as I can tell from reading his magazines, no concern with style whatsoever; the main thing was to make the prophecy and expound the science, no matter how clumsily you told the tale." The narrative flow of the stories was unimportant since the magazines were intended for a scientifically trained audience, not a literary trained one--as the letters will further reveal. Therefore, the readers most of the time did not base their approval on a story's literary merits. The sketchy narrative framework just made the science that much more palatable: to use Gernsback's own words, "Science Fiction ... gives you a scientific education--sugar-coated as a rule" (WS 5:1062).

However, while Gernsback was building up this image of his ideal reader, the ads and letters suggest the empirical reader was something different.

5.2. As the letters' reference to specific professions and age groups

will show, Gernsback's readership was quite a diverse one. The diversity of his audience is supported by the diversity of advertisements found in the magazines. Of course, Gernsback was always looking for more advertising copy to make his S-F magazines profitable. After the first 6 months, Amazing had a printing of over 100,000 (AS 5:483). By August 1927, Gernsback claims that 150,000 copies were being printed each month, yet the magazine was still not profitable due to the enormous distribution costs to some 30,000 newsstands: "Not until the magazine has some twenty or thirty pages of advertising will it be possible to realize a profit on the publication" (AS 2:421).

As a general caution, the very nature of advertising material calls for wariness on the part of any analyst. Obviously, the discourse of the ads does not foreground the shortcomings of their targeted audience: while on the one hand touting a product or service that the reader must feel he needs, the sales pitch is on the other hand couched in a way that will not offend the same reader's vanity. Therefore, what is not stated (le non-dit) in advertising may be just as important as what is.

The major part of the advertisements can be broken down into several themes, each with their topoi: making money, job opportunities, sex, personal physical improvement, personal intellectual improvement, novelty items. By far the largest group of ads that appeared consistently is that which advertizes study at home of radio, chemistry, and electricity. Invariably the accent of these advertisements was on the monetary aspect, and the jobs which this training led to were viewed idealistically: the leader headline of a National Radio Institute advertisement read "\$50 to \$250 a week IN WORK THAT IS ALMOST ROMANCE" (AS 3:1r). In another: "Don't spend your life waiting for \$5 raises in

a dull, hopeless job" (AS 4: 521). In addition to "Short hours. BIG PAY," (AS 3:1r) you could also earn money while you were learning at home. An advertisement placed by the Chicago Engineering Works exhorted: "Be an Electrical Expert - Earn \$3,500 to \$10,000 a year" (AS 1:385r). How realistic this salary was is dubious, since an advertisement for government workers from the same period (as mail carriers and railway postal clerks) offered \$1,700 to \$2,700 a year. Even during the Depression years, these advertisements still promised high-paying jobs and a training which "makes you independent of hard times, strikes, shut downs" (from a McSweeney Electrical Automotive School ad, WSQ 2:192). As for the elitism such a career confers, the Chemical Institute of New York suggested you "Get into a Dignified Profession" (WS 1:1200). Another advertisement by the same institute runs:

Chemistry is one of the most ancient and honorable callings known to man. During the Middle Ages its adepts were the advisors of kings. Then it was called a black art and its followers were believed to have supernatural powers.

The chemist of today with his modernized knowledge has secrets a thousandfold more potent at his command. He is the brains behind hundreds of rich industries, which could not exist without his skill.

After showing that a chemist is one of a kind, he is promised "Unlimited possibilities! Fascinating work! Immense opportunities!" (WSQ 3:144).

As this is the largest group of ads, we can surmise that a good part of the readership would have been scientifically or technically oriented. I would contend the implicit agential image is close to the idealized scientist/engineer of the narratives in my corpus (and in much US SF of the period, including Gernsback's own). Thus, the stories reinforce the ads by explicating the image of what the reader could become. On the enthymematic level, the accent is on monetary gain

together with a dynamism and desire to succeed. These ads would have the reader believe that the successful scientist/engineer is a leader among men, somehow free from material concerns and forces of the marketplace. Implicitly, however, there is also a converse indication that the readers are in dull, dead-end jobs and need further education to improve their lot. The study-at-home ads also promise students that they will "learn quickly and easily" (AS 3:2). An advertisement by the Chicago Engineering Works claimed that age or lack of experience was no drawback and the applicant did not have to be a "college man; you don't have to be a High School Graduate" (AS 1:385r).

The advertisements also branched into a wealth of paraphernalia for the scientifically and technically minded: e.g. the Burgess Blue Book of Electrical Formulas, Electrical Drawings, Problems and Calculations for "practical men and electrical students," wholesale radio parts, etc. Patent attorneys advertised occasionally to would-be inventors.

The other job group regularly advertised was for salesmen and journalists (earn money by writing). The March 1932 issue of Wonder also has an advertisement for the Lasalle Extension University to study law at home: "the law-trained man is a leader" (1197).

By far the greatest number of advertisements were focussed on identifying the scientist as a man apart from the rest of the crowd (through the "study at home" advertisements), and then showing him that he could have all those attributes associated with the American Dream (opportunity, money); as a result success and happiness would follow. But the man must also look and act the part: he must appear successful and happy in social gatherings. The emphasis put on getting ahead in the above ads was therefore reinforced by other types of advertisements. After 1930, advertisements started to appear for personal physical

improvement (body-building at home) as another way in which to build self-image or a particular lifestyle; there are also ads for devices to straighten your nose while you sleep (AS 4:61). Many of the heroes of my corpus are healthy and athletic-looking or have built up their bodies through gymnastics (e.g. Edmond of A Daring Trip to Mars). In this respect, we can say that the ideal reader of Gernsback's editorials and of the ads match each other and the narrative protagonists quite closely.

Physical improvement is enhanced by intellectual improvement and, in the 30s, advertisements started to appear for some of the literary classics, such as Maupassant's works (in 10 volumes, published by Gernsback), and Boccaccio's Decameron, though this was advertised using a semi-nude woman and the banner headline "You'll never know life until you've read the greatest of all forbidden books!" (WSQ 3:146). There is a continuity with the Masterpieces of Oriental Mystery by Sax Rohmer, the ad for which assures the prospective buyer that "These are the sort of stories that President Wilson, Roosevelt and other great men read to help them relax--to forget their burdens." In addition, the same division between White and Oriental as in any narrative corpus appears in this advertising blurb: "If you would match your wits against the most diabolical Oriental cunning ever conceived...as you plunge from the bright world of the West into the dubious underworld of the East..." (WSQ 2:194). The ad is illustrated by a beautiful young, scantily dressed White woman about to fall into the clutches of an unsavory-looking Oriental man. Obviously, in order to sell this fiction the advertisers felt that they had to rely on a certain sauciness to entice the readers, who would not as a rule be reading these books. (This

supports the argument that Gernsback's readers were not interested so much in literature as in science.) Besides these fictional works, a wealth of book clubs started appearing from 1930 on, offering non-fiction, usually technical, books--again suggesting that Gernsback's readership was technically oriented.

Another emphasis is on becoming the centre of attraction in any crowd, either by performing magic--"Gain the magnetic popularity that makes you the center of any crowd. Business and social success is assured the man who can perform mystifying tricks" (AS 4:519)--or by learning to play a musical instrument--"Change from a wallflower to the center of attraction. Music is the best thing to offer at a party--musicians are invited everywhere. Enjoy the popularity you have been missing" (SWQ 1:3). Occasionally, advertisements would appear showing readers how "to obtain success and happiness." The crux of the argument would run: are you contented with your present life "or do you want a beautiful home, fine automobile, and all those things that show success in life?" (AS 4:523).

From 1929 on, sex education books were also advertised consistently. Some of these were explicitly aimed at a younger audience: "Dr. Keller's valuable books can be safely entrusted to all intelligent young people" (SWQ 1:144). David H. Keller, M.D., also wrote SF stories for the Wonder magazines. With time, the number of sex books possibly for somewhat older readers increased, with emphasis upon perverted sexual practices or titillating sex, such as Strange Loves: A Study in Sexual Abnormalities which discussed, according to the advertising copy, "Sadism--necrophilia--Phallic Worship--Sodomy--Pederasty--Tribadism--Uranism...." (WS 8:1156).

In addition to these advertisements, mostly aimed at young males

with some purchasing power (i.e. from the high teens on), there are ads directed to mid-teen and younger boys, usually for cheap novelties. This age-bracket is confirmed by many readers' letters. Naturally, fewer advertisements (mainly for cheap gimmicks) appear directed to this group because of their lack of purchasing power. These ads pushed magic dice, cards, inks, and other tricks as well as technical novelties, such as an electric motor kit for 10 cents. Yet the goal of getting ahead was not absent in advertisements directed at the younger audience. A one-page ad of the Winnit Club offers prizes such as a bicycle, gun, sheath knife, fishing equipment or wrist watch if a boy joins the club. Membership is free and the ad states there is a membership "of 30,000 fellows like yourself, live wires, full of pep and ambition who, when they want something, turn into real go-getters, and crash through to success" (WS 1: 1350)--very much in parallel with their S-F heroes.

Gernsback also used his S-F magazines to cross-advertise his other publications--magazines such as Science and Invention, Radio News, French Humor; books such as Popular Magic; and other original S-F pocket books published by his company, such as The Girl from Mars by Jack Williamson and Miles J. Breuer, The Thought Projector by David H. Keller, etc., which had not been published in any magazine.

Summing up: the bulk of the advertisements strongly implies that the addressee was male, White, in his mid and late teens, and with an interest in science. Judging from the advertisements and considering that the average age for entering the work-force was lower than today, it seems that the target audience for the bulk of the advertisements would be approximately 16-20 years. Del Rey mentions a (not further

specified) poll taken in the late 30s indicated that the average age of the fans was 20 years.² In addition:

The "average" fan was supposed to be white, male, and probably somewhat more intelligent than the general level of the population, though hardly the genius he liked to believe himself. [...] at the time there were very few blacks or women in fandom. (73)

At this age, these young men would have some purchasing power to acquire the products and services advertised and would likely want better jobs with the promise of more money.

Obviously not the genius Gernsback wanted to conjure, the "average" SF fan was--judging from the frequency of study-at-home ads--educated very likely to the end of high school. A few of the letters refer to situations at school in which knowledge gained from the magazines was useful. In some cases, readers would have been educated to the college level, though a college degree was not the expected goal of a majority of young Americans at this time. Having left school at any early age, they would likely be trapped in dead-end jobs waiting out their lives for \$5 raises, as one ad suggested, with few prospects because of a limited education. However, since many, boys particularly, would have left school to support the family, especially during the Depression period, the study-at-home ads would have provided one way in which this segment of the population could have improved their lot. Many may not have finished high school--"you don't have to be a High School Graduate"--due to the family's economic circumstances. It is not clear whether these ads should be read as implying above-average industry and social mobility or, on the contrary, "our courses are so simple that any moron could follow them and succeed." All of these findings should be faced with some main hypotheses in the sociology of SF. Klein, whose opinions are shared by other critics, such as Fitting, states that

contemporary SF readers belong to "a scientifically and technologically oriented middle class" and are "liberal with all the economical and political connotations conveyed by this vague term" ("Discontent" 6 and 4-5). This may be true for post-1950s readers, indeed partly true for a 1920s audience--depending upon how the ads are interpreted. However, the ads could also be directed to a lower stratum of society than Klein's later sociological theory suggests. As far as I know, no study has attempted to delineate the 1920-30s' audience as a social group, and this area deserves further study.

At such an age young men would also be attracted to body-building programmes and gimmicks to make them socially desirable. Sexual competency was another priority, especially at a time when sex education was not given in schools and was acquired principally by hearsay. This is another way in which the image of the empirical reader deviates from the scientist heroes of the narratives who either did not need women or were so charismatic that they could not keep women away.

During the Depression years, a few advertisements also starting appearing aimed at women. By applying to the advertiser, women could sell dresses or household necessities to their friends and neighbours for which the advertiser would pay them a commission: woman's place was strictly tied to the home. The few advertisements aimed at women seem directed to the wives of these men. These advertisements appear after the name-change of the magazine to Wonder Stories and would probably have been attractive as a means for a wife to earn extra money at home when times were hard and women were traditionally expected to give up work when they married. The marrying age was also lower than today: one letter I found came from a man who had "only been married four days" complaining about his new wife not letting him read his Wonder Stories

in peace.

5.3. The letter columns in Gernsback's magazines were quite a phenomenon. The column played a unique role in SF fandom, since by including full addresses it also put readers in touch with other readers. The column "Discussions" first appeared in the Amazing magazines in January 1927 and was continued as "The Reader Speaks" in the Wonder magazines.

Gernsback's magazines were also quite novel in the manner in which they invited reader participation. Throughout their history, the magazines had various contests where readers were asked to write stories around the front cover, vote for their favourite stories by remitting a ballot slip, or petition Hollywood to make more S-F movies; they spawned several SF-oriented clubs and societies.

As can be expected of any publication aimed at a mass market, the diversity of Gernsback's readers was considerable: from the letter columns of the various issues, a spectrum of readers emerges that ranges from schoolboys and schoolgirls to doctors of engineering, and married women; from nine-year-olds to readers in their sixties. For Amazing Stories, it seems that the audience was more specialized than for the later Wonder magazines, since many of the early subscribers also read Gernsback's Science and Invention, which had had a special "scientifiction" issue in 1924. It seems that notices were sent to all the subscribers of Science and Invention offering them the opportunity to subscribe to Amazing before the first issue appeared on the newsstands.

Obviously, letters would have been screened and selected by Gernsback or his editorial staff before publication. Letters from readers totally out of line with Gernsback's views would have been, as far as I could tell from my sampling, published so infrequently as to not detract from the overwhelmingly positive image of science and SF (and correlation with Gernsback's views). However, given that names and addresses were published, that enthusiasts met, and that some fans became authors, it appears that as a rule letters which were published were not fabricated by the editorial staff to meet the image of an ideal reader. An editorial reply to one letter states: "We do not discriminate in printing letters or have to 'fake' any." (WS 6:1404) However, it did become editorial policy, because of the volume of mail, to summarize letters--"when lack of space prohibits publishing the complete letter, we will give a resume of it in a single paragraph" (WS June 1932:89)--making for certain distortions. Letters which cited specific ages or professions were from adolescent boys (mainly 12-16 years who would have had the time to write in), college students, professional scientists and engineers (this would support Gernsback's elitist image of the ideal reader yet make it doubtful that they would be reading SF for instruction rather than for entertainment), and those generally interested in science ("Through experiment I have found that...").

In the later issues I studied, however, there seems to be an increasing number of women reading the magazine as well as writing for it. The broadening of audience to include women and those who were not specialized in science appears to correspond roughly with the name change of the magazine from Science Wonder Stories to Wonder Stories. Gernsback, in the May 1930 issue of Science Wonder Stories (1099),

suggests that the name change was needed because many people had the impression that it is "a sort of scientific periodical rather than a fiction magazine." However, the women were very much in the minority. This is stated in an editorial comment (WS 9:120) and assumed by all social historians of the S-F sub-culture (see particularly the special "Sociology of SF" issue of Science-Fiction Studies 4 [November 1977]).

As far as the standard of education is concerned, this too seems wide-ranging. The letters show that the educational level ranged from doctors of engineering to those still in high school; from those versed in literature and who complained of the literary quality (I found one substantiated letter criticising the over-use of adjectives--WSQ 2:189-90) to others who, in all seriousness, cite Jules Verne as a "promising writer" or believe that the ark in Garrett P. Serviss' "The Second Deluge" is actual and could he have the plans please.

One thing is apparent about Gernsback's audience: its active nucleus was composed of scientifically minded males. By far the greatest accent of the letters is on the practicability of the science contained in the stories: sometimes, a discussion would go on for months via the letter column regarding a particular scientific principle, its application in an S-F story, and the probability or impossibility of its success. Not only were many of Gernsback's readers scientifically trained, so were many of his US authors--e.g. E. E. ("Doc") Smith, Miles Breuer, David Keller.

Since SF was, to a large degree, perceived to be of interest only to scientists and the scientifically inclined, a type of "community apart" or sub-culture emerged. Through the letter column and the various clubs and societies that resulted from the magazines, SF fans

were able to establish contact with each other. Regular letter-writers to the magazine became as famous as many of the authors: when letters failed to appear in a few issues from schoolboy fan Forrest Ackerman (later known as "Mr. Fandom"), other fans wrote in saying that they missed his letters and wondered whether there was a reason for their absence. The style in which some of the letters were written should be mentioned, as it pertains to the self-image of the readers. There is a high incidence of slang or fad words and expressions that have passed out of usage, which suggests that the readers saw themselves as "with it" types and were young, and possibly also a first attempt at a sociolect for the budding S-F sub-culture.

The column was also a place where authors would write in, either to defend one of their own stories after reader criticism or to participate in some ongoing controversy. Conversely, some of the readers became authors for Wonder--Raymond A. Palmer and P. Schuyler Miller, to name but two.

The readers' opinions concerning the German narratives are generally favourable. Where a letter is printed which refers to the German narratives, the readers are positive. Below are some sample comments from letters regarding the German narratives:

Were I to list these the stories in order of merit, I should place Gail's "Shot Into Infinity" first, unquestionably. Here is a real story, with the romantic interest definitely subordinated to the scientific element, as it should be. In many of these pseudo-scientific works, it isn't. Herr Gail, with characteristic German thoroughness, has built up a convincing, logical story, that really "grows on" the reader... a masterpiece of scientific writing. (SWQ 2:426)

In favour of Utopia Island, a reader writes:

The whole, simple cause of my finally writing this letter is that super-excellent, most delightful, and entirely "different"

masterpiece, "Utopia Island".

This truly "Utopian" tale will naturally receive many words of praise and thanks from other readers, but it can never be overpraised, for the author, Otfried von Hanstein, has so splendidly, carefully, and realistically written the tale that the reader actually feels himself an elated member and participant in the entire story. Truly an extraordinary and "Utopian" masterpiece! (WS 2:278)

The writer then goes on to suggest that the incredible feats of engineering used during the sports festival on Santa Scientia be incorporated into the 1933 World's Fair in Chicago. The editors give the reader their enthusiastic support to approach the commission handling the Fair. It seems likely that if the reader had approached the Commission with this idea, he would not have been taken very seriously considering the projects' nature and scope: some of them are impractical because of cost (e.g. a car raceway that divides into individual circles, each rotating independently, so that conditions are equal for all drivers), others would have killed the participants (e.g. belts containing radium encased in lead to be worn by swimmers so that they may perform aquatic gymnastics without effort; the amount of lead needed for safety would have been so great as to prevent the swimmers moving at all).

A female reader offers this of Valier's A Daring Trip to Mars, "Congratulations on your 'scoop'... with Max Valier's story. "A Trip to Mars" has the flavor of authenticity which science fiction lacks..." (WS 3:569). Another reader calls it "very good." Opinions are similar for most of the other German narratives.

There are some letters of negative criticism. These letters refer mainly to the two narratives classed by me as liberal. It seems significant that, with one late exception, the only really negative letters (on supposedly aesthetic grounds) regarding the German

narratives should refer to them. Could it be that the US readers did not expect their SF to challenge social structures? A survey of the reactions to US narratives in these magazines would be needed to settle this point.

Of The Cosmic Cloud, one reader writes, "In the Fall 1931 issue I disliked 'The Cosmic Cloud.' I couldn't even get into it Outside of 'The Cosmic Cloud' I thought the rest of the issue swell" (WSQ 4:574-75). The reader does not elaborate upon his reasons. I would speculate that The Cosmic Cloud--because it was radically different in narrative tone (its relative lack of action-adventure that was the basis of most every US story) and possibly because it was ideologically different--would be difficult for a US reader, expecting something close to the typical offerings of the time, to "get into." (Some idea of the focus of US SF at this time can be gained from the titles in the same issue as The Cosmic Cloud: "The Asteroid of Death" by Neil R. Jones, the issue's cover feature, "The Man Beast of Ioree" by Ralph T. Jones, "The Derelict of Space" by William T. Thurmond and Ray Cummings, "Zina the Killer" by Walter L. Martin, "The Planet Entity" by E. M. Johnson and Clark Ashton Smith, and "The Struggle for Pallas" by J. M. Walsh.) Further, the English title The Cosmic Cloud may have been substituted for the literal translation The Star of Africa (the name of the spaceship in the narrative) for the very reason that it sounds more exciting and that readers would have been "turned off" by the literal translation and by the fact that the story pertained to Africa.

The Final War is berated by one reader as "absolute trash" that appeals to "certain types of bloodthirsty and barbarous imbeciles." Gernsback answers this criticism by emphasizing the instructive value of the narrative:

We do not favor war stories because they may be bloodthirsty thrillers. But we do favor them when a picturization of the bloodliness and brutality of warfare brings home to a generation who did not fight the last war, what a terrible thing modern warfare is.

We are very surprised that Mr. Smirni [the reader] thought that "The Final War" of all stories was "absolute trash." This story written simply, sincerely by a German artillery officer in the World War, has as its sole aim the illustrating of the utter folly of another great war. We urge Mr. Smirni to reserve his judgment until he has read the final installment in this issue; and if he does not agree that this story should be sent to every military commander in the world, as a word of warning, we will handsomely apologize. - Editor (WS 4:1294)

Following this editorial reply, more letters started to appear that agreed with Gernsback's reason for printing the narrative--namely, to inform the generation which did not fight in the First World War (the under 28 year-olds). How sincere Gernsback's defence was cannot be ascertained, but it does support his argument for the educational value of SF.

A letter from German engineer Willy Ley praises The Final War (which, it seems, he had not read in German--strengthening the possibility that this novel was not published in Germany).³ However, he approves the story above all for its depiction of business as the victor of any war and considers how economic structures could be changed to make war unprofitable for big business. The editorial response does not comment on the central issue of Ley's letter but agrees with him on a subsequent remark: that it is important to think of other nations in terms of men, women, families, etc. with similar hopes and aspirations as our own so that the thought of going to war against them would be abhorrent. (Ley later became a famous science-fact writer, active in US S-F magazines.)

In the May 1932 issue of Wonder Stories, another reader gives a favourable comment on the narrative to which the editorial comment is:

"The comments on 'The Final War' were uniformly favorable; and we are going to try to get Mr. Spohr to tell us how civilization was reconstructed" (1389).

The only other narratives which drew criticism were the right-wing Druso and Interplanetary Bridges, but on diametrically opposite political grounds. In the September 1934 issue of Wonder Stories, Donald A. Wollheim (a Jewish-American fan, later writer and prominent publisher of SF) writes:

And now for "Druso." I didn't read that and I never will. A story by a man living in a nation where they have denounced all things that they [sic] have gone to build up civilization. Where they have followed a scheme of hatred, militarism, paganism, intolerance, anti-liberalism, mental slavery, and a false and discarded theory of racial superiority. You ought to be proud of yourselves working to advance those cause by patronising their writers. "Interplanetary Bridges" is an example of the close nationalistic view the Germans have. (501)

His reason for not reading Druso rested on a boycott of German goods that was already in effect (Wollheim's letter to Wonder Stories, March 1935:1265). In an attempt at a rebuttal, the editor--either Gernsback or his assistant Charles Hornig--writes: "You have an entirely incorrect impression about 'Druso,' which only goes to show that you can't judge a story until you've read it." Rather naively, he adds: "What the leader of Germany does to or for the German people is for the Germans to think about."

Other letters followed in the November 1934, January, and February 1935 issues, but generally readers thought that SF transcended national considerations and that German SF should continue to be published. Most readers therefore divorced SF from other social concerns, further supporting the case that the majority of these readers were more concerned with the science or a "good read" than political or moral

considerations, i.e. they were only scientifically critical. In fact, after Druso, only von Hanstein's The Hidden Colony was published. Possibly, the reason was that under the Nazis German SF production fell quantitatively.⁴ But probably the main reason was that, with the deteriorating political situation in Europe, the editors felt they could no longer defend their publication of German SF. In addition, The Hidden Colony is a translation of a 1924 work, and similar in theme to other of von Hanstein's translated works, as noted by reader Jack Darrow (WS 6:1396). The readers were becoming jaded with his "mechanical farms," as one reader put it (WS 7:118). US SF had also developed sufficiently by this time, so that there was less need to reprint "classics" or translate foreign works. US SF was emerging as an independent force by 1935, with themes somewhat different from European SF, and von Hanstein's 1924 story must have seemed stale to the US readership.

The importance of the readers' letters should not be underestimated. As early as the seventh issue of Amazing Stories (October 1926), a ballot slip was included in the magazine for the readers to vote for the stories they liked or disliked. Not only did this co-determine which type of stories were subsequently published, the feedback that resulted through the letter columns also helped other authors to determine their choice of storyline or presentation so as to make them saleable. Since the German narratives were so popular with the readers in Wonder's heyday (1930-31), this probably not only occasioned the purchase of more German narratives, but also may have prompted the US authors to appropriate certain themes and devices from them.

Two distinct images of the US reader emerge from the non-fictional

discourses: Gernsback's idealized implied reader and the empirical reader revealed by the letters; the ads cater to both images. These profiles will be confronted in the following chapter and opposed to the heroes of the German narratives to delineate the complementary nature of the non-fictional discourse and narratives, as well as to offer hypotheses for the publication of the German narratives in these magazines.

NOTES

¹ Amazing Stories, (April 1926): 3. Further quotes will be annotated in the body of the text. Science Wonder Quarterly will be abbreviated to SWQ, Wonder Stories to WS, Amazing Stories to AS, Wonder Stories Quarterly to WSQ and will be followed by a number to denote

month and year. Thus:

- AS 1 = no. 4 (July 1926)
- AS 2 = no. 5 (August 1927)
- AS 3 = no. 1 (April 1926)
- AS 4 = no. 6 (September 1927)
- AS 5 = no. 6 (September 1926)

- SWQ 1 = no. 1 (Fall 1929)
- SWQ 2 = no. 3 (Spring 1930)

- WS 1 = no. 12 (May 1931)
- WS 2 = no. 2 (July 1931)
- WS 3 = no. 4 (September 1931)
- WS 4 = no. 11 (April 1932)
- WS 5 = no. 10 (May 1934)
- WS 6 = no. 11 (April 1935)
- WS 7 = no. 1 (June 1935)
- WS 8 = no. 10 (March 1935)
- WS 9 = no. 11 (June 1934)

- WSQ 1 = no. 4 (Summer 1930)
- WSQ 2 = no. 2 (Winter 1933)
- WSQ 3 = no. 1 (Fall 1931)
- WSQ 4 = no. 4 (Summer 1932)

The number following the colon denotes page number. Caps and italics are Gernsback's throughout.

The pages on which some advertisements appear are unnumbered in the magazines. In this case, I have used "r" to denote "recto," and "v" for "verso."

² Del Rey does not specify the source of his data. However, I assume that he is referring to the poll taken by John Campbell for Astounding in the late thirties frequently quoted by other critics.

³ Ley's letter originates from Berlin: it may be, as Ley suggests, that Wonder introduced some Germans to their own national SF.

Obversely, it may also indicate that some of the German authors (von Hanstein, for example) wrote with an eye to the US market.

⁴ See the letter exchange between Edward J. Tabler and William B. Fischer in Science-Fiction Studies 6 (1979):114-16.

CHAPTER SIX

CONCLUSION

6.1. The object of this thesis has been to examine a corpus of German narratives largely forgotten by commentators of early SF and to suggest what functions these narratives had for the German readers and for readers of Gernsback's S-F magazines. A focus of interest for both the German authors and Gernsback was the role of science-cum-technology. It therefore seemed most appropriate to identify how that role was perceived by the German authors in their ideological context; how it was viewed by Gernsback and his readership; and thus to offer hypotheses why these narratives were published in Gernsback's magazines.

To do this, I first divided the narratives ideologically by critically adapting Cioffi's "formulaic" hypothesis. This turned out to be an indispensable step, since the conservative and liberal texts are different in tone, purpose, and view of science.

The conservative narratives are usually narrative structures from other genres made over to SF by virtue of a supposed scientific novum; they also do not subject power relationships to scrutiny but take them for granted. All the conservative narratives treat science as a given and its impact on society at large is not a major concern. The liberal narratives emphasize social relationships, and technology is secondary for their authors. The prominent features of these two types of texts can be summarized thus:

Conservative

optimistic (about science
and future)

science as a given

relevance to German nation

Liberal

pessimistic (about science
and future)

science as part of social
structure

universal relevance

Within the German context, the conservative narratives particularly address concerns German national concerns in the 1920-30s. The background of these narratives is unemployment (Electropolis), hunger (The Hidden Colony, "Garfield's Invention," In the Year 8000), post-war conditions and scientific research in impoverished Germany (Gail's Shot and to a lesser degree Stone, Utopia Island, Interplanetary Bridges), and Lebensraum (Electropolis, Druso, In the Year 8000, Interplanetary Bridges, Utopia Island, The Hidden Colony). In contrast to the settings of US S-F narratives in that period, which tended to expand farther and farther into space, the concerns of the German narratives are shown to be overtly "here and now": they are chiefly set on Earth in a contemporary or near-future time frame. The spatial analysis confirms that the narratives are centred on contemporary concerns: when the agents move into a "rural" space they use this space to grow food and forge a new Germany. Even when the contradictions of machine technology are voiced, such as in von Hanstein's Hidden Colony, these concerns are suppressed in favour of technology's primary importance of forging a new "Germanized" space.

The texts were also examined using Suvin's hypotheses of agential and spatial analysis, to show how and for what purposes the agents (and through them the authors) view and use science. The agential analysis determined that all the protagonist scientists/engineers are types,

depicted fairly consistently as strong, charismatic, healthy, young, White male individuals who usually act upon their own initiative to benefit themselves and their nation. The other groups in the narratives are marginalized by and subordinated to this leader class. The protagonists are creators of technology (usually a machine of some kind) and use their invention to modify the fictive environment. As shown in Chapter Four, the change that these agents wish to bring about usually addresses contemporary German concerns. Technology is the key means to Germany's brighter future.

The authors of the conservative German narratives employ this agential type to enact a socio-political transformation of Germany's contemporary "reality." As ideological representative of the German nation, the scientist/engineer type is presented as a morally correct "good guy," and anyone who attempts to obstruct him is cast as the bad guy (English, French, non-Whites, and even some approximation to the proletariat--the Hidden Colony's insurrectionary machines). The scientist/engineer types allow a myth of German triumph to be fashioned and to function as alternative history for a German audience.

Further, in a remarkably prescient way, improvement in the German condition involved for the German authors co-operation with the USA. This link was usually of an economic nature and sometimes symbolically heightened by the marriage of an American and a German, by emigration, or by a change in nationality from German to American.

The first attempts in rocket experimentation with a view to space flight offered the German writers of SF a new conceptual grid in which they could fulfill national dreams by writing a new German history or at least by rewriting past history. Nagl suggests that the S-F genre, as a reactionary replacement for utopia, was, in the precarious social and

political climate of the 1920s, predestined to become the platform for irrationalism and revisionism which promised the annulment of World War I and its consequences (Science Fiction in Deutschland, 151-52). My corpus confirms that this holds true for the bulk of the genre. However, there were also "liberal" exceptions.

In contrast, these narratives view science/technology pessimistically and the impact of technology is not specific to the German nation but is universal in its implications. Both narratives show that science is not, as the conservative majority tended to view it, the answer to humankind's problems. These narratives emphasize that science cannot control space: in The Cosmic Cloud there are natural forces and events over which man has no control; in The Final War technology is dependent upon the uses to which man puts it, and if such knowledge is used irresponsibly, then society will suffer. The Final War really acts as an admonition regarding war and comments upon the manner in which technology can be manipulated by the ruling classes to achieve their objectives: unless society changes, this will be our future. Progress in these two narratives is implied as improvement in human relationships between the sexes, social strata, and power groups, including the abolition of militarism and national boundaries.

6.2. The examination of the non-fictional discourse using both its overt statements and its presuppositions has shown that Gernsback's view of science was positive, indeed positivistic and scientistic. For him social problems would be solved by technology, not by other forces: science/technology was always "good," and, as noted, he refused to publish stories showing a negative impact of technology on society (WS

2:286). The topoi of his editorials cast SF likewise in an instructive and prophetic role. The beneficent application of science/technology is confirmed by 14 of the 16 narratives in my German corpus. Parallel to this, the majority of S-F narratives in his magazines--and certainly in my German sample--had a positive view of the uses and effects of technology. Gernsback viewed his implied readership in an idealized manner reminiscent of the heroes of the German conservative narratives: both are referred to as pioneers forging their way to a brighter future by virtue of technology. This too is supported by a particular reading of the study-at-home ads which claimed that becoming a scientist/engineer means becoming a leader upon whom depends the future. In this sense, the ads and the readers' letters form a non-fictional discourse enhancing the conservative stories and Gernsback's views.

The ads partly overlap with Gernsback's view of the implied reader. The positive image of the implied reader is reinforced by their enthymemes. Yet these ads also imply, from the non-dit and presuppositions induced from their social context, a somewhat different type of empirical reader.

The opinions expressed in Gernsback's editorials and in the majority of the readers' letters closely parallel one another to the point that Gernsback's ideology and that of his active, tone-setting reader group or nucleus coincided. To what degree this can be attributed to genuine thinking alike on the part of the editor and his readership and to what degree to a shrewd selection of letters is still unknown. In addition, Gernsback's prestige and persuasive power (through hyped copy preceding each narrative and the larger-than-life image of his ideal reader) was such that many of his relatively young,

uncritical readers fell into line with his ideology. However, there were a few, such as Wollheim, who were more aware of political events (perhaps because they were relevant to his ethnic group), or even literarily aware. Such letters are few in relation to the number of letters printed that validate Gernsback's views. Two possibilities present themselves. Either the reader distribution was in reality overwhelmingly "Gernsbackian" (a possibility according to historians of S-F magazines, since so many readers were loyal and subscribed to Science Wonder when Amazing was sold), or it was less so, but it appeared such because of a selection process which published just enough opposing views to bring in a flood of letters supporting Gernsback. In both cases, the outcome weighted his ideology in a particular way, encouraging more readers to concur with his views and approve the magazine profile in this very competitive market.

The letter selection as printed does approximate Gernsback's implied reader of the editorials: a young, White, science-oriented male, fanatical in his preference for SF. The focus of this core readership was on the validity of the science/technology: the scientific accuracy both of the narratives and of the illustrations was a major debating point in the letter columns. The nucleus of Gernsback's readership therefore closely resembles the implied reader. Nonetheless, as shown, there are marginal readers: women, engineers, those younger/older than the average, etc. Their marginality is suggested both by the smaller frequency of letters published by fewer ads being specifically directed to these groups.

The information obtained from the analysis of the narratives and non-fictional discourse can be consolidated, and the implied and

empirical reader compared to the image of the archetypical scientist/engineer, as in the following table. Not all categories apply to all groups: for example, it is not mentioned whether the narrative agents are literarily aware or whether Gernsback's implied reader should be sexually experienced.

To sum up my findings, Table 2 overpage shows that the implied reader of the magazines and the idealized image of the scientist/engineer from the narratives match each other more closely than the empirical reader matches either of them. We are dealing here with three categories of types (cf. Suvin, "On Dramaturgic Agents" and the discussion in my Chapter Three): one is overtly fictional (column 2), one imaginatively implied (column 3), and one implied from empirical data (column 4). Column 2 (and partly 3) provides role models for the empirical reader and his (self-)image (column 4). That is why the "no" entries from column 4 (and even from 3) are to be taken as "not yet" in comparison to the full role-models--composed exclusively of positive traits--from column 2, the fictional narrative agents.

TABLE 2. Comparison of Narrative Type, Implied and Empirical Reader Types

(1) TRAITS	(2) NARRATIVE TYPE - "archetypical scientist/ engineer"	(3) TYPE OF READER IMPLIED BY EDITORIALS (A) OR ADS (B)	(4) DOMINANT TYPE OF EMPIRICAL READER
<u>A) Editorials compared to narratives:</u>			
Young	yes	yes	yes
Male	yes	yes	yes
Aryan	yes	yes	no (4)
Science-oriented	yes	yes	yes
Leader	yes	yes	no
Genius	yes	yes	no
<u>B) Advertisements compared to narratives:</u>			
Sexually experienced	mostly (1)	no	no
Physically attractive	yes	no	no
Seeking success for themselves	yes (2)	yes	yes
Seeking money	yes (3)	yes	yes
Seeking excitement/adventure	yes	yes	yes (5)
Professional	yes	no	no

(1) Exceptions are Korf (Shot), Burns (Stone), Baumgart (Cosmic Cloud), Gernhold (Year 8000)

(2) Also seeking success for Germany.

(3) Though not seeking money for themselves, Korf, Baumgart, the Interplanetary Bridges trio, Helmstätter, Aporius, are all seeking financial backing for their projects.

(4) "White," but of diverse creeds.

(5) Vicariously, at least.

6.3. In view of all the foregoing, an answer can now be offered for the question why the German narratives appeared in the US magazines. The USA and Germany had basically similar political and economic structures, and SF in both shared the technocratic ideology. Though the German narratives have a strongly nationalistic flavour with their predominant, monolithic German heroes and unique German concerns, they also incorporate what was, at the time, some of the most advanced scientific/technological thinking, especially with regard to rocket experimentation and its possible application for space flight. Gernsback's readership would have readily appropriated the scientific content and filtered out or suppressed information extraneous to its interests i.e. the need for Germany's expansion and rebirth. Whether this scientific research was used for the German nation's political aims was not the readers' concern.

Thus, we can see why and how the conservative German narratives would be palatable to Gernsback and his dominant type of reader. The liberal narratives would appear to be appreciated by a minority inclined toward liberalism, who were also reading Gernsback's magazines (the future Pohls and Kornbluths, for example, who were condemned by some US critics--mainly outside the S-F sub-culture--as radical leftists with the publication of their Space Merchants in 1953¹). One factor in the low proportion of liberal narratives was probably the audience make-up suggested by active reader response.

The primary features of the liberal narratives are their concern for humankind or, to put it obversely, their unconcern with nationalism. In this sense, they would have been more acceptable to a US audience than their conservative counterparts. Of course, they are pessimistic in tone, and this may partly account for their appearance during the

Depression. However, this pessimistic tone would have been offset--just as the problem of nationalism would have been overridden in the conservative narratives by an aspect more important to the US reader: the scientific content. Even these liberal narratives do not show science being used for bad effect: in The Cosmic Cloud science and technology are much debated, and only the abrupt inconclusive ending shows them to be ineffective, while The Final War is an indictment of society putting science to use for the wrong purposes and, at the same time, implying the need for technocracy. Editorial responses to letters criticising The Final War show that Gernsback's editorial policy could accommodate this story within his view of SF as instruction. Further, these "deviations" may have appeared in Wonder Stories as result of the input of its managing editor, David Lasser. Lasser left in November 1933 to chair the Workers' Unemployed Union, an organization critical of the government's relief programmes during the Depression and active in petitioning for unemployment insurance and job creation. Finally, a frequent editorial response against negative reader comment regarding foreign SF was that US readers should be introduced to the best foreign SF--within which, at that time, German SF was seminal and prestigious.

In Weimar Germany, SF functioned in a more directly political manner than in the US. Further, SF was packaged and marketed for a much broader mass audience in the US than in Germany. This desire to market SF among all social groups in the US, Nagl suggests, "acted to restrain direct political ideology. This restraint did not apply in the Weimar Republic, thanks to the influence of politics on everyday life and thanks also to the class struggles between bourgeoisie and proletariat.

The bourgeois literature that SF has always been had to show the flag and propagate bourgeois values." ("National Peculiarities" 31). Further, Klein notes that "American SF has never been the battleground of profound political conflicts, that is to say, it has never undergone a true debate about the basic form of society" ("Discontent" 5).

The reasons for the inclusion of the German narratives in Gernsback's magazines were, then, quite different from their political function in Weimar Germany. As noted, 14 of the 16 narratives shared Gernsback's ideology regarding science vis-à-vis society and what "good" SF should be: a glorification of the technical in an adventure-action framework. The US audience did not, for the most part, perceive the stories as having a political role. As the previous chapter has shown, the view of the majority of readers (and, judging from the editorial replies, of Gernsback too) was not only uninterested in foreign politics but uncomprehending and naive of how external events could and would affect the US. The stories were for Gernsback a means--as was his own SF--to spread his view of science as man's salvation, whereas for the Germans, the bulk of the narratives envisioned a time when Germany would once more have regained her former glory by means of science and technology. Thus for the German reader science was a metaphor for Germany's (future) power and prestige; for the US reader, science was the basis of personal advancement as well as social progress in a young, dynamic society.

6.4. Three methodologies were fundamental to researching this thesis. Cioffi's three S-F formulae, as mentioned earlier, are too vague to provide a worthwhile and thoroughgoing analytical basis of the S-F genre. However, the ideological division suggested by but modified from

his "formulae" proved useful to allow discussion of my corpus as two major categories of texts.

Suvin's agential analysis confirmed, for this corpus, that SF of this era is devoid of full-fledged characters. The agential and spatial analysis revealed that the scientist/engineer agents fulfilled an ideological function through the manner in which their actions changed the quality and composition of space. Whether the narratives were conservative or liberal, science/technology provided a basis for focussing concerns existing in the authors' empirical environment.

Angenot's and Suvin's hypotheses were brought together in the final chapter to discern a dominant type of reader. The reader's "traits" were arrived at through combining the implication of Suvin's (see Table 1) and application of Angenot's social discourse concepts to the ads and letters. It led to establishing a dominant reader type who could be defined in half a dozen non-contradictory traits.

Some indication has been given throughout this work of the areas where study has been done: Gernsback's S-F magazines are well documented for their US contributions, for example, but I have not come across any studies that detail the foreign contributions or the translators. Studies in the sociology of SF have concentrated on delimiting the social group to which SF is oriented chiefly in the post-1945 era. Yet any attempt to delimit Gernsback's audience is usually impressionistic. Many critics refer to a poll conducted by Campbell for Astounding as the first attempt to define the SF readership but, as far as I know, his poll was never verified; it might well have had a wide margin of error. In its formative stages, the SF audience may therefore have been more diverse than a later, more established readership. More studies need to be done, for which the magazines themselves are--as this thesis too has

confirmed--a valuable starting point.

As discussed in Chapter One, lack of documentation and critical interpretations about early German SF, together with very sketchy biographical information about many authors, seriously hinders research for the critic venturing into its history and historical criticism. This thesis has therefore started to bridge this gap in German SF by rediscovering some of its lesser authors and by providing the first extensive analysis of a largely forgotten corpus of foreign SF in Gernsback's magazines.

NOTES

¹ Quoted according to Klein, "Discontent" 5.

German Narratives Listed Chronologically by Magazine

July 1926	<u>Amazing Stories</u>	"The Eggs from Lake Tanganyika"
Sept. 1927	<u>Amazing Stories</u>	"The Malignant Flower"
Fall 1929	<u>Science Wonder Quarterly</u>	<u>The Shot Into Infinity</u>
Spring 1930	<u>Science Wonder Quarterly</u>	<u>The Stone from the Moon</u>
Summer 1930	<u>Wonder Stories Quarterly</u>	<u>Electropolis</u>
Fall 1930	<u>Wonder Stories Quarterly</u>	<u>Between Earth and Moon</u>
May 1931	<u>Wonder Stories</u>	<u>Utopia Island</u>
July 1931	<u>Wonder Stories</u>	<u>A Daring Trip to Mars</u>
Fall 1931	<u>Wonder Stories Quarterly</u>	<u>The Cosmic Cloud</u>
March 1932	<u>Wonder Stories</u>	<u>The Final War</u>
July 1932	<u>Wonder Stories</u>	<u>In the Year 8000</u>
Winter 1933	<u>Wonder Stories</u>	<u>Interplanetary Bridges</u>
January 1934	<u>Wonder Stories</u>	"Garfield's Invention"
January 1934	<u>Wonder Stories</u>	"The Secret of the Microcosm"
May 1934	<u>Wonder Stories</u>	<u>Druso</u>
January 1935	<u>Wonder Stories</u>	<u>The Hidden Colony</u>

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